

Chapter XIII

Oceans Law, the Maritime Environment, and the Law of Naval Warfare

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I. INTRODUCTION

Persian Gulf armed conflicts during 1980-88 (the Iran-Iraq conflict) and 1990-91 (the Gulf War between Iraq and the U.N. Coalition after Iraq's invasion and occupation of Kuwait) have resulted in environmental degradations of Gulf waters and the land and airspace over States party to the conflicts. Perhaps the worst of these was what a *Time* writer called a "Man-Made Hell on Earth"¹ when Iraq dynamited over 550 of 684 producing Kuwaiti oil wells in early 1991 during the Gulf War.²

This paper does not address environmental issues related to land and air warfare. Rather, the ensuing analysis explores the maritime aspects of these wars, *i.e.* the "Tanker War" in the Persian Gulf during 1980-88, and conflict at sea during the Gulf War of 1990-91, in their environmental contexts.³

In 1983, Iraqi rocket attacks hit Iran's Nowruz offshore drilling facilities, causing a 20-million barrel oil spill into the Gulf. Although early reports that the slick had equalled the size of Belgium were later discounted, it was big enough to threaten Bahraini, Qatari and Saudi desalination plants before strong winds blew it offshore and partially dispersed it. Fish imports into the United Arab Emirates (U.A.E.) were stopped because of oil contamination in the fishing grounds. Iraq rejected Iran's request for a partial truce so that oil cappers could try to stop the 2000-5000 barrels per day flow. The result was that the leakage lasted for nine months.⁴ This may have been in response to Iran's attack on Iraqi oil terminals and ports early in the war, which resulted in their closure. There are no reports of significant pollution of the Gulf resulting from these attacks.⁵ In 1986, Iraq bombed Iran's Sirri, Lavan and Larak oil terminals, and Iran attacked the neutral U.A.E. Abu al-Bakoush oil installations. In none of these cases were there reports of significant spillage into the Gulf.⁶ The next year, U.S. naval forces attacked Iranian offshore oil rigs used as an Iranian gunboat base in response to Iran's Silkworm missile strike on a reflagged tanker, *S.S. Sea Isle City*, in Kuwaiti waters. There is no report of petroleum spillage on the high seas resulting from either attack.⁷

Tanker War shipping losses from attacks by both belligerents were another source of marine pollution during that conflict. Although most tankers traveled in ballast to the Gulf, they and incoming cargo vessels had bunker fuels aboard. All outbound ships also had bunkers aboard, and nearly all tankers leaving the Gulf departed with a full load. These vessels, as well as inbound and outbound cargo ships, were attacked by the belligerents. Iraq and Iran also laid naval mines, either initially set adrift or which came loose from their moorings. Several merchantmen, among them neutral flagged vessels, were mined. A U.S. warship, *U.S.S. Samuel B. Roberts*, was seriously damaged by an Iranian-laid mine in 1988. Iraqi aircraft attacked tankers escorted by Iranian warships, and both countries conducted land-based air attacks on merchant ships, primarily tankers, of neutral flags, some of which were under convoy by neutral warships. Iran used its surface navy to attack these vessels as well. The U.N. Security Council twice condemned these attacks and the result on the environment. In 1987, an Iraqi Mirage I aircraft mistakenly launched two airborne Exocet missiles at, and seriously damaged, the U.S. warship, *U.S.S. Stark*. Another source of marine pollution came from losses of naval vessels, principally those of Iran, hit as self-defense measures following attacks on U.S. naval vessels. The conflict was a major war, not a small one, particularly when the commitments of Iran and Iraq were measured. For the only time since World War II, deliberate, sustained operations were carried out against merchant ships.⁸ Iran and Iraq attacked more than 400 merchantmen, sinking 31 with 50 more declared total losses. Write-off losses stood at nearly half the World War II tonnage sunk.⁹ The Second World War lasted for just under six years. The Iran-Iraq War ground on for eight years. The reason for the disparity between the relatively small number of ships lost and the huge tonnage losses is, of course, the larger displacement of merchant vessels in the 1980s. The possible result when a tanker was attacked during 1980-88 was the risk of a considerably larger oil spill for each ship attacked than during World War II.

Ten days after the U.N. Security Council-authorized Coalition action to drive Iraq out of Kuwait began during the Gulf War,¹⁰ Iraq opened valves of its Mina al-Bakr offshore terminal and occupied-Kuwait's Sea Island terminal. Iraq also dumped oil from five tankers at Mina al-Bakr. From 3 to 16 million barrels of oil flowed into the upper Gulf. When the oil reached Arabian peninsula shores, thousands of migratory birds died in the muck. Fishing grounds were ruined. The food chain for all forms of Gulf wildlife was interrupted. Beaches were made unusable for the tourist industry. Saudi desalination plants, which supplied the civil population and Coalition military forces with drinking water, were threatened. Coalition air forces stopped the flood by bombing the pumping stations.¹¹

There was little destruction of merchant shipping during the 1990-91 Gulf War. The U.N. embargo and authorizations for interception and diversion of Iraq-bound

vessels did not result in any attacks.¹² Only a few Coalition warships were damaged, mostly by mines, and although Iraqi naval forces were destroyed, they were mostly small ships. Most vessel-source pollution came from the Mina al-Bakr tankers.¹³

As both conflicts make clear, if the belligerents who initiated environmental degradation had hoped to improve their fortunes on the battlefield by these tactics, any optimism went a-glimmering. The Iran-Iraq war wore on for five more years before ending in mid-1988. The Iraqi attack on Nowruz was not a war-stopper, and leakage from stricken merchantmen did not even receive media attention. Similarly, blasting oil wells and dumping Kuwaiti crude into the upper Gulf during the 1990-91 war did not influence events appreciably.¹⁴

Although environmental damage and restoration were not as long-lasting as first predicted, the economic loss was staggering.¹⁵ Oil spills and resulting slicks dwarfed the size of previous accidental spills. Perhaps 24 times as much oil as was released in the 1989 grounding of *Exxon Valdez* in Alaska's Prince William Sound, went into the Gulf because of Iraq's actions in 1991.¹⁶ The 1978 allision and breakup of *Amoco Cadiz* resulted in a spill a fourth or less of Iraq's deliberate discharge in 1991.¹⁷ There is no account of how much leaked from damaged or sunken ships during the Tanker War, but since many merchantmen that were hit carried petroleum, it may have been considerable. Damaged or sunken warships undoubtedly leaked bunkers into the Gulf.¹⁸

The foregoing survey does not include oil going overboard in deballasting or from land-based sources not connected with armed conflict. Worldwide figures for this pollution rose from about a million metric tons annually in the 1960s to nearly 7 million tons in 1973, with over half from land-based sources and 35 percent from ships. Two-thirds of the latter have been said to be from "routine tanker operations."¹⁹

Environmental degradation during international armed conflict is not a new phenomenon. Pollution of the sea on a measurable scale during warfare at sea has largely been an aspect of Twentieth Century conflicts, particularly after oil replaced coal as the primary source of energy for steam-powered ships, and the world began to consume petroleum as the primary fuel for transportation, as a major source for heating, and an ingredient for plastics and other products. The Persian Gulf has been a particularly busy highway for transporting petroleum, since a high percentage of the Earth's proven reserves are within the territories of States bordering the Gulf. The problem of pollution of the oceans is not new²⁰ or confined to the Gulf. However, the recent Gulf wars have merely underscored issues that have arisen on a worldwide basis, usually in the context of accidents through collisions or groundings of tankers. These accidents, like the loss of *R.M.S. Titanic* in 1912 and the resulting 1914 Convention for Safety of Life at Sea,²¹ have tended to be catalysts for treaties or other action to prevent recurrences.²²

The world little noted warnings of the potential for environmental degradation of the seas before, during and after the Tanker War.²³ However, there were numerous claims that Iraq had violated existing international norms, notably those in the Environmental Modification Convention²⁴ and Additional Protocol I²⁵ to the Geneva Conventions of 1949,²⁶ which declare principles of humanitarian law during armed conflict. The U.N. Security Council passed Resolution 687, declaring Iraq "liable under international law for any direct damage, including environmental damage and in depletion of natural resources, or . . . injury as a result of [its] unlawful invasion and occupation of Kuwait."²⁷ There were also calls in the United Nations and other quarters for action in the form of additional legal protections, *e.g.*, a Fifth or "Green" Geneva Convention to protect the environment during armed conflict.²⁸ The latter efforts largely came to naught, primarily because participants concluded that no new agreements were necessary if existing ones were enforced.²⁹ The question of belligerents' culpability for environmental damage during international armed conflict at sea remains as a possible source of rhetoric, if not law, in future conflicts. Publication of the *San Remo Manual* in 1995³⁰ demonstrates that the issue remains alive in commentators' minds, as does this Symposium.

This paper is a partial summary of principal findings of my research on this complex subject and is limited to the law of the sea, the oceans environment and how these sometimes overlapping bodies of law relate to the law of armed conflict at sea, *i.e.* the law of naval warfare. Land-based aspects of environmental issues (*e.g.*, transborder air pollution), and problems related exclusively to land warfare or air warfare above the land, are not discussed.

II. The Law of the Maritime Environment, the Law of the Sea, and the Law of Naval Warfare

There is an enormous volume of law related to the maritime environment, most of it in treaties appearing since the 1958 Geneva Conventions on the Law of the Sea.³¹ If international agreements related to conservation of marine resources³² or maritime safety³³ are considered, insofar as observing these standards would promote a better oceans environment, there were scattered efforts at protection of the oceans well before 1958. The same is true with respect to the law of naval warfare, where treaties negotiated to regulate aspects of warfare or humanitarian principles to be observed during war derivatively benefit the environment, particularly when conflict at sea has impact ashore. Agreements of this nature include the 1907 Hague Conventions dealing with shore bombardment and mine warfare³⁴; the 1925 Geneva Gas Protocol, whose prohibitions on gas and bacteriological warfare affect human and nonhuman inhabitants of the environment³⁵; the 1935 Roerich Pact³⁶ protecting monuments, etc., ashore; parts of the 1949 Geneva Conventions³⁷; and the 1954 Hague Cultural Property

Convention,³⁸ which provides *inter alia* for safe sealift of protected objects. There is thus as deep a legacy of what today are called environmental concerns in the law of armed conflict as those agreements dealing with pollution or species protection, which today might be lumped under the same rubric.

The 1982 U.N. Convention on the Law of the Sea³⁹ is the first worldwide multilateral agreement attempting to deal comprehensively with maritime environmental problems. For those countries that are or become parties,⁴⁰ the Convention will replace the 1958 LOS Conventions.⁴¹ Bahrain and Iraq ratified it in 1985, and Kuwait in 1986; many other countries, *e.g.* France and the U.A.E., were signatories, but other States with prominent roles in the Gulf wars—*e.g.*, the United Kingdom and the United States—were not signatories or parties during the Tanker War or the 1990-91 conflict.⁴² Thus, for some States there was an obligation not to defeat the object and purpose of the Convention during part of these confrontations,⁴³ and others were bound by the custom the Convention restated.⁴⁴

The Convention has different provisions dealing with the welter of custom and treaties affecting the maritime environment; it continues 1958 convention provisions stating the relationship between the law of the sea and the law of armed conflict and its component, the law of naval warfare.⁴⁵

A. The Relationship Between the 1982 LOS Convention and Other Environmental Treaties

The 1982 LOS Convention will be an effective if mild trumping device—much as the U.N. Charter, Article 103, declares that Charter norms supersede those of all other treaties⁴⁶—for agreements related to maritime environmental protection, whether already in force or to come into force, which may have special terms but which “should be carried out in a manner consistent with the general principles and objectives of [the] Convention.”⁴⁷ This is slightly different from Article 311(2), the general supersession provision for the Convention, which declares that it does not alter existing rights “which arise from other agreements compatible with this Convention” and which do not affect enjoyment of other parties’ rights or performance of their obligations.⁴⁸ The upshot is that all agreements in place or to be negotiated, if related to the generally-stated environmental norms of the Convention, must conform to these Convention norms.⁴⁹

Reading of Part XII of the 1982 LOS Convention,⁵⁰ as well as many references to environmental standards scattered elsewhere throughout the document,⁵¹ demonstrates that specifics are more often found in other agreements, perhaps bilateral, and frequently regional in recent years. The latter have been often sponsored by the U.N. Environment Programme (UNEP), which developed after the Stockholm 1972 U.N. Conference on the Human Environment.⁵² Examples of these include two that are particularly relevant to this analysis, the 1978 Kuwait

Regional Convention and Protocol⁵³ and the 1982 Red Sea Convention and Protocol.⁵⁴ Although the Persian Gulf was the principal theater of maritime military operations during the 1990-91 Gulf war, there were many Coalition interceptions of Iraq-bound merchantmen in the Red Sea, and some missile and air strikes were launched from there.⁵⁵ In many instances, detailed regulations are developed by administrative bodies established by the treaties.⁵⁶ This procedure is contemplated in the 1982 LOS Convention.⁵⁷

There is the possibility, of course, that a parallel but contradictory custom⁵⁸ or other source of law may develop alongside Convention-based norms.⁵⁹ The developing customary norm might be the same as, and thereby strengthen, the Convention norm.⁶⁰ If in opposition, the custom will weaken the treaty norm.⁶¹ However, no treaty, and probably no custom, can supersede the U.N. Charter, mandatory norms developed under it,⁶² or *jus cogens* norms.⁶³

B. "Other Rules" Clauses in the Conventions

Both the 1958 and 1982 LOS Conventions include clauses, sometimes overlooked in analysis or commentary, stating that rights under these agreements are subject to "other rules of international law" as well as terms in the particular convention.⁶⁴ For example, Article 87(1) of the 1982 LOS Convention, which declares high seas freedoms, also says that "Freedom of the high seas is exercised under the conditions laid down by this Convention and by other rules of international law."⁶⁵ Four conclusions can be stated.

First, the overwhelming majority of commentators—including the International Law Commission, a U.N. General Assembly agency of international law experts⁶⁶—have stated that the "other rules" clauses in the 1958 and 1982 LOS Conventions refer to the law of armed conflict,⁶⁷ a component of which is the law of naval warfare. Therefore, provisions such as Article 88 of the 1982 LOS Convention state a truism—*i.e.* that the high seas are reserved for peaceful purposes⁶⁸—but high seas usage can be subject to the law of naval warfare, when Article 87(1)'s other rules clause is read with Article 88. As in the case of the 1958 conventions,

That provision does not preclude . . . use of the high seas by naval forces. Their use for aggressive purposes, which would . . . violat[e] . . . Article 2(4) of the [U.N.] Charter . . . , is forbidden as well by Article 88 [of the Convention]. See also LOS Convention, Article 301, requiring parties, in exercising their rights and p[er]forming their duties under the Convention, to refrain from any threat or use of force in violation of the Charter.⁶⁹

This analysis is buttressed by the Charter's trumping clause; no treaty can supersede the Charter.⁷⁰ Thus, the peaceful purposes language in Article 88 and other provisions of the Convention⁷¹ cannot override Charter norms, such as those

in Article 2(4), but also those in Article 51, *i.e.* the “inherent right of individual and collective self-defense.”⁷²

Second, there is no indication that the LOS Convention drafters thought that the other rules clauses refer to anything else, and particularly to any customary law of the environment. International environmental law was a mere gleam in academics’ and futurists’ eyes when the 1958 LOS Conventions were signed, with only a patchwork of international agreements on the subject,⁷³ and there is no indication that the International Law Commission considered the issue. By contrast, there was an established body of law dealing with armed conflict situations, including naval warfare, at the time.

Third, other agreements dealing with protection of the maritime environment include clauses exempting, or partially exempting, their application during armed conflict or similar situations. Some speak of war,⁷⁴ others armed conflict or the need to protect vital national interests.⁷⁵ This includes the recently-ratified North American Free Trade Agreement.⁷⁶ This tends to confirm the view of applying the law of armed conflict as a separate body of law in appropriate situations. To the extent that treaties dealing with the maritime environment do not have such clauses,⁷⁷ such agreements must be read in the light of the LOS conventions, which include such provisions. And to the extent that the 1958 LOS conventions today recite customary norms—and such is the case with the High Seas Convention⁷⁸—applying the laws of armed conflict (LOAC) as a separate body of law in appropriate situations as a customary norm must also be considered with LOAC treaties and other sources⁷⁹ when analyzing environmental issues in this context.

Fourth, principles of the law of treaties—*e.g.*, impossibility of performance,⁸⁰ fundamental change of circumstances,⁸¹ or war, the last applying only to parties to a conflict⁸²—may suspend operation of international agreements during a conflict or other emergency situation, or may terminate them. The outbreak of hostilities obviously does not suspend or terminate humanitarian conventions designed to apply in armed conflict.⁸³ The other side of the coin is the policy of *pacta sunt servanda*, *i.e.*, treaties should be observed,⁸⁴ and one manifestation of this principle is that States signing treaties should not behave so as to defeat their object and purpose.⁸⁵ The often-amorphous law of treaty succession⁸⁶ must be considered, particularly with respect to older agreements, including those stating the law of armed conflict, to the extent that such treaties are not part of customary law today.⁸⁷ If these agreements restate custom, and are subject to treaty succession principles with respect to a particular country, that country is doubly bound.⁸⁸

The conclusion is inescapable that the other rules clauses of the 1958 Conventions—provisions that were carried forward into the 1982 LOS Convention—mean that the terms of the Conventions are subject to the law of armed conflict, of which the law of naval warfare is a part. Since the 1958 High

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Seas Convention is generally regarded as a restatement of customary law, its other rules clauses are part of the customary norms governing oceans law during armed conflict.

C. The 1982 LOS Convention and the Maritime Environment

Although the Convention is prolix on the subject of the environment, the changes it proposes are neither great nor radical; it takes a holistic approach.⁸⁹ The core of marine environmental standards are in Part XII, which establishes for the first time a comprehensive legal framework for protecting and preserving the marine environment.⁹⁰ Other Convention provisions deal with environmental issues⁹¹ in the context of specific ocean areas.

1. Part XII of the Convention

Part XII begins by declaring that “States have the obligation to protect and preserve the marine environment.”⁹² The Convention does not define “marine environment,” but the negotiators generally understood that the atmosphere is included where relevant.⁹³ It also includes living resources, marine ecosystems and sea water quality.⁹⁴ The Convention defines “pollution of the marine environment”; it

... means the introduction by man, directly or indirectly, of substances or energy into the marine environment, including estuaries, which results or is likely to result in such deleterious effects as harm to living resources and marine life, hazards to human health, hindrance to marine activities, including fishing and the legitimate uses of the sea, impairment of quality for use of sea water and reduction of amenities.⁹⁵

The Convention also declares that States’ “sovereign right to exploit their natural resources” pursuant to national environmental policies in, *e.g.*, the EEZ, is subject to a “duty to preserve and protect the marine environment”⁹⁶ against significant⁹⁷ damage.

States must act individually and jointly to prevent, reduce and control pollution of the marine environment from any source, using best practicable means at their disposal, in accordance with their capabilities. They must harmonize national policies, *i.e.*, national laws, with this requirement.⁹⁸ In doing so, they must ensure that they do not damage other States or their environment by pollution, or that pollution does not spread beyond their areas of sovereignty or control,⁹⁹ *e.g.*, the EEZ, as well as the territorial sea.¹⁰⁰ Required measures include those designed to minimize to the greatest possible extent releasing toxic, harmful or noxious substances, especially those that are persistent, from land-based sources, from or through the atmosphere or by dumping¹⁰¹; pollution from vessels, including accident prevention measures, dealing with emergencies, safety at sea, preventing discharges, and regulating design, construction, equipping, operating and

manning vessels; pollution from installations for exploring or exploiting natural resources of the seabed and subsoil; pollution from other installations operating in the marine environment.¹⁰² In so acting, States must refrain from unjustifiable interference with other States' exercising their Convention rights and duties.¹⁰³ Measures taken must include those necessary to protect and preserve rare or fragile ecosystems and habitats of depleted, threatened or endangered species and other marine life.¹⁰⁴ In combatting pollution, States must not act to transfer damage or hazards from one area to another, or to transfer one type of pollution into another.¹⁰⁵ Technologies that alter or harm the environment, or introduce new or alien species that would significantly harm the environment must be avoided.¹⁰⁶ There are two distinct duties: avoiding use of harmful technologies, and "maintain[ing] the natural state of the marine environment," the latter an innovation in international law.¹⁰⁷

The Convention requires environmental cooperation on global and regional bases.¹⁰⁸ Other provisions require cooperation in scientific research and in establishing scientific criteria for rules for pollution prevention, reduction and control.¹⁰⁹ States must also monitor, publish and assess the marine environment and provide scientific and technical assistance, with preference for developing States.¹¹⁰ A State must notify other countries and competent international organizations (*e.g.*, the International Maritime Organization, IMO) of actual or imminent pollution damage to the environment.¹¹¹ Notification is a rule of customary international law.¹¹² Notice "also envisages that a notified State may wish to take preventive action to avert damage to itself."¹¹³ States must jointly develop and promote contingency plans to combat pollution, cooperating with international organizations within limits of their capabilities.¹¹⁴

The Convention establishes standards for international rules and national laws to combat pollution.¹¹⁵ States must adopt measures at least as effective as international rules and standards to prevent, reduce and control pollution from land-based sources; seabed activities, artificial islands and installations subject to "national jurisdiction;" the Area; and vessels of their registry or flag.¹¹⁶ The phrase "national jurisdiction" includes internal waters, the territorial sea, the EEZ, the continental shelf and archipelagic waters.¹¹⁷

Similar principles govern ocean dumping.¹¹⁸ Dumping in another State's territorial sea, EEZ or continental shelf waters requires the coastal State's express prior approval; it may regulate such dumping after consulting with other affected countries.¹¹⁹

Although some drafters thought that emergency fuel discharge from aircraft might not be an exception to prohibitions on ocean dumping without prior express approval, eventually the conclusion was that general international law allows such on *force majeure* or distress theories as an exception to treaty compliance.¹²⁰ What is true for aircraft is also true for ships; distress and *force majeure* theories are

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recognized for innocent passage and straits transit passage regimes. Distress and *force majeure* can be valid claims during armed conflict situations, with different rules applying in relationships among States not party to a conflict, relationships between belligerents and States not party to a conflict, and relationships between belligerents.¹²¹

States must harmonize national policies at regional levels¹²² and must work at the global level to establish rules, standards and recommended practices and procedures.¹²³

2. Controlling Pollution and Protecting the Environment in Specific Ocean Areas

The 1982 Convention, Part XII, also recites standards related to specific ocean areas, *e.g.*, the territorial sea. In some cases, *e.g.* the contiguous zone, there is no reference in Part XII.

The Convention has special rules for controlling pollution from vessels in the territorial sea. States may publish special rules for foreign-flag ships' entry into port or internal waters, after due notice. These can be cooperative arrangements. States may adopt special rules for foreign-flag vessels within their territorial sea, including ships in innocent passage. However, no special rule can hamper innocent passage.¹²⁴

These provisions are consistent with the Convention's navigational articles, which declare that passage is considered prejudicial to the coastal State's peace, good order or security if a foreign-flag ship "engages in . . . any act of wilful and serious pollution contrary to [the] Convention[.]" and which allows the coastal State to adopt regulations, "in conformity with . . . this Convention and other rules of international law, relating to innocent passage . . . in respect of . . . conservation of the living resources of the sea [and] . . . preservation of the environment of the coastal State and the prevention, reduction and control of pollution thereof . . ." with due notice of such rules. Foreign ships must comply with these rules.¹²⁵ Tankers, nuclear-powered ships and vessels carrying nuclear or other inherently dangerous or noxious substances or materials may be required to confine their passage to sea lanes established by the littoral State. These ships must also observe any special precautions stated in international agreements.¹²⁶ As in other circumstances, coastal States cannot hamper innocent passage except pursuant to the Convention. In applying regulations adopted in accordance with it, the practical effect cannot be to deny or impair innocent passage. There can be no discrimination in form or fact against any State's ships or against vessels carrying cargo to, from or for any State.¹²⁷

However, coastal States may act to prevent breach of conditions attached to port calls or passage to internal waters. Moreover, they may temporarily suspend innocent passage in specific areas of their territorial sea if essential for protecting their security after duly published notice of a suspension.¹²⁸ While this might

arguably allow suspension for “environmental security” reasons, such is not the case. Repetition from the Territorial Sea Convention,¹²⁹ and the 1982 Convention’s drafting history,¹³⁰ point to a different view. The right of temporary suspension balances between a coastal State’s right to protect its territorial integrity through legitimate self-defense measures¹³¹ and rights of navigation, etc., under the territorial sea innocent passage regime. How protecting a coastal State’s environment fits into the analysis is a different issue.

The same territorial sea rules for criminal and civil jurisdiction, and for immunity of warships and other government ships operated for non-commercial purposes, also apply to environment-related claims. For example, warships that do not comply with valid coastal State environmental regulations can only be required to leave the territorial sea immediately. Flag States are responsible under international law for loss or damage caused by their warships or other noncommercial vessels.¹³² The Convention’s innocent passage rules, insofar as they concern environmental protection, are also subject to “other rules of international law,” *i.e.*, the law of naval warfare.¹³³

The Convention’s innocent passage rules apply to straits for which innocent passage rights obtain and to archipelagic waters passage.¹³⁴ If a country qualifying as an archipelagic State declares archipelagic sea lanes and air routes and they are adopted by the appropriate international organization (*i.e.* IMO),¹³⁵ duties of ships and aircraft regarding the oceans environment, authorization for the archipelagic State to adopt laws, and the requirement that the right of passage shall not be hampered or suspended applicable to straits transit passage, attach to archipelagic sea lanes passage. A difference between straits innocent passage and archipelagic innocent passage, whether lanes have been declared or not, is that archipelagic States may suspend innocent passage for security reasons as under the territorial sea regime, while straits innocent passage is nonsuspendable.¹³⁶ Although coastal States may take appropriate enforcement measures against vessels “causing or threatening major damage” to the straits environment because they have violated navigational safety, maritime traffic or environmental laws while in transit passage (the regime for most straits), this does not apply to warships or other vessels entitled to sovereign immunity.¹³⁷

Article 33 of the Convention, permitting a contiguous zone, does not specifically mention environmental protection. It allows declaration of such a zone, which, if no EEZ has been claimed, is a high seas area contiguous to the territorial sea but no wider than 24 miles from territorial sea baselines. The coastal State may exercise control in the zone to prevent infringement of its customs, fiscal, immigration or sanitary (*i.e.*, health or quarantine) laws and to punish violations committed within the territorial sea.¹³⁸ It is conceivable that environmental protection claims could be made with respect to health law enforcement, but this has not been the traditional view of the zone’s purpose.¹³⁹

Article 33 is tied to Article 303 of the Convention, which sets standards for archeological and historical objects found at sea.¹⁴⁰ “Found at sea” seems to have a more comprehensive scope than “found in the marine environment.” Another problem with Article 303 is that there is no agreed definition of the terms “archaeological” and “historical.”¹⁴¹ Article 303 says that its terms are also “without prejudice to other international agreements and rules of international law regarding the protection of objects of an archaeological and historical nature,”¹⁴² a variant on the “other rules” clauses that make the Convention subject to the law of armed conflict in appropriate situations.¹⁴³ In internal waters, the territorial sea and archipelagic waters, coastal State law governs as to artifacts found there; beyond, out to the Area, *i.e.*, the deep seabed beyond national jurisdiction or sovereignty, Article 303 controls but does not accord sovereign rights.¹⁴⁴ Objects found in the Area must be preserved or disposed of for the benefit of humankind, with “particular regard” for the State of origin,¹⁴⁵ if that can be determined.

Consistent with the Convention’s navigational articles,¹⁴⁶ as in the case of the territorial sea, coastal States may adopt special laws for their EEZs.¹⁴⁷ Although there is no explicit cross-reference to Convention continental shelf principles in this Part XII provision, clearly the coastal State has the same kind of environmental rights and responsibilities with regard to activities on its continental shelf where shelf sovereignty has been declared with no claim for an EEZ.¹⁴⁸ For both the EEZ and the continental shelf, coastal States must have due regard for other oceans users’ high seas rights, including navigation and overflight.¹⁴⁹ Both are subject to sovereign immunity exceptions for, *e.g.*, warships, and the “other rules of international law” principle, in connection with coastal State environmental regulation.¹⁵⁰

Provisions allowing coastal State regulation of pollution from vessels in the territorial sea, the EEZ and above the continental shelf are considered an “innovation for the general law of the sea,” which usually has looked to flag or registry States to control pollution from ships.¹⁵¹ Whether considered *lex lata* or *de lege ferenda* today, these innovative provisions are subject to qualifications: there must be a balance of due regard for others’ high seas rights, *e.g.*, freedoms of navigation or overflight; warships and other non-commercial vessels retain sovereign immunity; and any attempt at environmental regulation of these sea areas is subject to law of armed conflict principles in appropriate situations through the “other rules” clauses.

The 1982 Convention also provides for enforcing environmental standards. States must adopt laws implementing international norms for land-based pollution, pollution from seabed activities, ocean dumping, and through or from the atmosphere.¹⁵² The pollution hazard must be significant.¹⁵³

States in whose port a vessel, suspected of polluting that State's internal or territorial waters or EEZ, in violation of international standards, is located, may investigate, detain or begin enforcement against that ship. These rights are subject to, *e.g.*, notice to the flag or registry State, nondiscriminatory enforcement, and enforcement only through State vessels, *e.g.*, warships or vessels on authorized government service.¹⁵⁴ Enforcing States may not endanger safety of navigation or create a hazard to an accused vessel, bring it to an unsafe port or anchorage, or expose the marine environment to "an unreasonable risk."¹⁵⁵ A detaining State is liable for unlawful enforcement measures, excessive "in the light of available information" at the time.¹⁵⁶ The Convention also provides in Article 221 that

1. Nothing . . . prejudice[s] the right of States, pursuant to international law, both customary and conventional, to take and enforce measures beyond the territorial sea proportionate to the actual or threatened damage to protect their coastline or related interests, including fishing, from pollution or threat of pollution following upon a maritime casualty or acts relating to such a casualty, which may reasonably be expected to result in major harmful consequences.

2. . . . "[M]aritime casualty" means a collision of vessels, stranding or other incident of navigation, or other occurrence on board a vessel or external to it resulting in material damage or imminent threat of material damage to a vessel or cargo.

Measures to be taken under Art. 221(1) include destruction of the vessel. These provisions, found in other widely-accepted pollution prevention conventions,¹⁵⁷ may be close to acceptance as customary international law, if such is not already the case.¹⁵⁸ Such a right of intervention would have justified Persian Gulf countries' acting to prevent oil pollution damage from the attacks on oil terminal facilities or vessels during the Tanker War,¹⁵⁹ assuming there was a threat within the Convention definition, and that the leakage resulting from the attacks was a "casualty" within the meaning of Article 221(2), *i.e.*, an "occurrence on board a vessel or external to it resulting in, or imminent threat, of material damage to a vessel or cargo." The provisions may not have applied to Iran and Iraq in that war because of the "other rules" clauses of the LOS Conventions, applicable at least as customary law,¹⁶⁰ but as between Persian Gulf States not party to the conflict and either belligerent, or as between States not party to the war, the law of the sea applied in this context. Since U.N. Security Council resolutions at least theoretically involved all countries around the Gulf during the 1990-91 conflict, LOS principles allowing intervention may have gone by the boards because of the other rules clauses as to the Iraq-initiated spill from the Kuwaiti port.¹⁶¹ To the extent that Article 221 would apply as a customary norm, it supplied additional justification for Coalition attacks to stop the discharge.

In the context of the Convention's enforcement provisions, here too warships, naval auxiliaries and other vessels or aircraft on government non-commercial

service may not be detained and have sovereign immunity; this is qualified by requiring flag States to ensure, by adopting “appropriate measures” not impairing operations or operational capabilities of such ships or aircraft, that they operate consistently, so far as is reasonable and practicable, with the Convention. This policy repeats other Convention immunity rules except for the “appropriate measures” qualification.¹⁶² It

... acknowledges that military vessels and aircraft are unique platforms not always adaptable to conventional environmental technologies and equipment because of weight and space limitations, harsh operating conditions, the requirements of long-term sustainability, or other security considerations. . . . [S]ecurity needs may limit compliance with disclosure requirements.¹⁶³

Some regional environmental protection agreements either omit¹⁶⁴ a declaration of the customary immunity rule or do not append the 1982 LOS Convention’s limitations and requirements for appropriate measures. The Kuwait Regional Convention and the Red Sea Convention are examples of the latter.¹⁶⁵ To the extent that the Convention binds treaty partners in a given context, those treaties must be considered modified to that extent.¹⁶⁶ To the extent that the LOS Convention restates customary law, the longstanding principle of warship and naval auxiliary immunity¹⁶⁷ is a powerful factor for its application in these contexts as well.

Other divisions of the 1982 LOS Convention providing for environmental protection independently of Part XII include those dealing with vessel accidents on the high seas, high seas fishing, and the Area, also a part of the high seas, and marine scientific research. The Convention’s high seas fishing provisions follow in part those of the 1958 conventions, but rules for the Area are unique to the 1982 Convention. Because there has been little technology capable of exploiting that part of the ocean, and because the Convention has only recently come into force, these provisions are presently largely theoretical in nature. Nevertheless, they are likely to have impact in the next century, and many restate concepts in other ocean areas regulated by the Convention.

The Convention requires more of flag States as to ships under their registry and operating on the high seas. Flag States must ensure “that the master, officers and, to the extent appropriate, the crew are fully conversant with and required to observe the applicable international regulations concerning . . . prevention, reduction and control of marine pollution. . . .”¹⁶⁸ The Convention also requires States to “cause an inquiry to be held . . . into every marine casualty or incident of navigation on the high seas involving a ship flying its flag and causing [*inter alia*] . . . serious damage . . . to the marine environment. The flag State and the other State shall co-operate in the conduct of any inquiry . . . into any such marine casualty or incident of navigation.”¹⁶⁹

There is a duty among States bordering semi-enclosed areas, *i.e.*, a gulf or other body surrounded by two or more States and connected to another sea or the ocean by a narrow outlet, such as the Persian Gulf, to coordinate managing, conserving, exploring and exploiting oceanic living resources, and to coordinate implementing their rights and duties as to protecting and preserving the marine environment.¹⁷⁰

Marine scientific research is recognized as a high seas right in the 1982 Convention,¹⁷¹ but such operations must be conducted in compliance with relevant regulations adopted in conformity with the Convention including those protecting and preserving the marine environment.¹⁷²

Although high seas fisherfolk retain the traditional freedom to seek their catch,¹⁷³ the Convention seines in that right to a certain extent, as it has been under earlier treaties and practice. It “has never been an unfettered right.”¹⁷⁴ The Convention explicitly subjects high seas fishing rights to limiting treaties, and to cooperation in achieving agreements, as well as rules it sets for certain fish stocks and on conserving high seas living resources.¹⁷⁵ To the extent that these treaties impose environmental controls, the high seas freedom to fish is curtailed. The same is true for conservation measures imposed by coastal States or agreements.

Although the Convention imposes a due regard formula on concurrent exercise of high seas freedoms such as navigation, overflight and fishing,¹⁷⁶ this formula does not apply to environmental concerns.¹⁷⁷ The only indirect exception is the due regard requirement for Area activities,¹⁷⁸ which might include environmental controls.

The Area—defined as the seabed, ocean floor and subsoil beyond national jurisdictional limits¹⁷⁹—and its resources are declared the common heritage of humankind.¹⁸⁰ National jurisdiction means, *inter alia*, a declared EEZ or continental shelf. The legal status of the water column or airspace above the Area is not affected by Convention provisions dealing with it.¹⁸¹ Area governance is vested in an Authority,¹⁸² which must adopt rules and procedures for preventing, reducing and controlling pollution and other hazards to the marine environment, including coastlines, interfering with the ecological balance of that environment, with particular attention being paid to protection from harmful effects of activities such as drilling, dredging, excavation, waste disposal, building and operating or maintaining installations, pipelines and other devices. These rules must also protect and conserve Area natural resources and prevent damage to flora and fauna of the marine environment. The Authority must take necessary measures, which may supplement existing treaties, to protect human life, in connection with Area operations.¹⁸³ There is also an obligation to preserve objects of an archaeological and historical nature found in the Area, with particular regard paid to preferential rights of a State or country of origin, and which incorporates by reference other rules of law and agreements dealing with artifacts protection.¹⁸⁴ The Convention also requires that Area activities be undertaken “with reasonable regard for other

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activities in the marine environment.” Area installations, like those in the EEZ and on the continental shelf, *inter alia* must not be established “where interference may be caused to the use of recognized sea lanes essential to international navigation or in areas of intense fishing activity. . . . Other activities in the marine environment shall be conducted with reasonable regard for activities in the Area.”¹⁸⁵

Convention provisions for the Area include an “other rules of international law” clause:

The general conduct of States in relation to the Area shall be in accordance with the provisions of this Part [XI], the principles embodied in the [U.N.] Charter . . . and other rules of international law in the interests of maintaining peace and security and promoting international co-operation and mutual understanding.¹⁸⁶

As in the case of the high seas generally, the Convention declares that the Area shall only be used for peaceful purposes.¹⁸⁷ The same interpretations should obtain for application of these articles as analyzed under other parts of the 1982 Convention and its 1958 antecedents.¹⁸⁸ “Other rules” means the law of armed conflict may be applied in certain contexts. The “peaceful purposes” provision means that no State can take any action, *e.g.*, aggression, in violation of the Charter. *Peaceful activities under Area rules include military activities, e.g., naval task force operations.*¹⁸⁹

3. Regional Agreements, the 1982 LOS Convention, and the Law of Armed Conflict at Sea

The Kuwait Regional Convention, to which all Persian Gulf countries are party, including Iran and Iraq, covers the entire Gulf, except for bordering States’ internal waters. Similarly, the Red Sea Convention’s geographic sweep includes that body and the Gulf of Aden, again excepting bordering States’ internal waters.¹⁹⁰ Both define “marine pollution” in nearly identical terms as

introduction by man, directly or indirectly, of substances or energy into the marine environment resulting or likely to result in such deleterious effects as harm to living resources, hazards to human health, hindrance to marine activities including fishing, impairment of [the] quality of use for use of [the] sea and reduction of amenities[.]¹⁹¹

Parties pledge cooperation to prevent, abate and combat pollution of the marine environment in the Gulf or the Red Sea, whether caused by ships, dumping from ships or aircraft, from exploring and exploiting the territorial sea and its subsoil and the continental shelf, or land reclamation activities.¹⁹² The Conventions’ Protocols amplify this pledge.¹⁹³ The latter include broad definitions of “marine emergency” to trigger application; it means

. . . any casualty, incident, occurrence or situation, however caused, resulting in substantial pollution or imminent threat of substantial pollution to the marine environment by oil or other harmful substances and includes, *inter alia*, collisions, strandings and other incidents involving ships, including tankers, blow-outs arising from petroleum drilling and production activities, and the presence of oil or other harmful substances arising from the failure of industrial installations[.]¹⁹⁴

These Conventions and Protocols do not explicitly provide for anticipatory self-defense against imminent pollution threats, as does the 1982 LOS Convention.¹⁹⁵ However, the Protocols appear to contemplate such by allowing “every appropriate measure to combat pollution and/or to rectify the situation,” provided that other countries are notified¹⁹⁶ of emergency responses, defined as “any activity intended to prevent, mitigate or eliminate pollution by oil or other harmful substances or threat of such pollution resulting from marine emergencies.”¹⁹⁷ This broad grant of authority must be tempered by the limitations of proportionality, etc., stated in the 1982 Convention.¹⁹⁸ This Convention language further justifies, subject to notice and proportionality principles, the concept of anticipatory reaction to imminent threat. And if this be so, might such be further support for the concept of anticipatory self-defense?¹⁹⁹

These regional treaties had applications during the Tanker War and the 1990-91 conflict. The Red Sea Convention and Protocol did not apply to the 1980-88 war, except as being supportive of common principles in the Kuwait Convention and Protocol, which did apply, geographically,²⁰⁰ to the Persian Gulf.

There were two belligerents in the Tanker War, Iran and Iraq. The Kuwait Convention and its Protocol could not have applied *per se* as between them, either because of application of the other rules principles of the law of the sea,²⁰¹ or because of law of treaties principles such as impossibility of performance, fundamental change of circumstances or armed conflict between them, all of which are grounds for suspending international agreements.²⁰² However, except insofar as the latter grounds would apply as between belligerents and other Gulf States party to the Convention and its Protocol, their pledges to prevent, abate and combat pollution²⁰³ of the marine environment remained in force. To the extent that the agreements’ terms restated customary norms,²⁰⁴ these too remained in force.

Given the completion of the LOS Convention, its clauses paramount and its terms, virtually identical with those of the Kuwait Convention and its Protocol, together with terms of other treaties around the world that were virtually identical with the Convention and the Protocol by 1982, there was at least a developing customary norm, and perhaps a customary rule, alongside treaty principles stated in the Kuwait Convention and its Protocol, by 1982.²⁰⁵ If this is so, the belligerents were obliged not to act so as to pollute, or act to cause an imminent threat, to other Gulf States’ interests, and to interests of other countries using Gulf waters for

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freedom of navigation through actions such as attacks on the Nowruz and other terminal facilities²⁰⁶ when the result at the time of decision was likely to be a substantial spill.²⁰⁷ Under the Kuwait Convention, Iran was arguably within its rights to ask for an opportunity to stop the outflow.²⁰⁸ For the same reasons, there may have been violations of the Convention and the Protocol with respect to spillage resulting from Iraqi and Iranian attacks on shipping during the war,²⁰⁹ if such could have been foreseen to have resulted in substantial risk to other States' environmental interests, and such risks occurred. The record is less than clear on this point.²¹⁰

With respect to the 1990-91 conflict, the analysis is different. First, Iraq could claim suspension of the Convention and its Protocol under the law of treaties.²¹¹ Second, it could be argued that U.N. Security Council resolutions superseded the Convention and its Protocol because of the supremacy of Charter-based law in actions on the environment and in authorizing all necessary means to eject Iraq from Kuwait.²¹² To the extent that customary law was embodied in these treaties and such customary law survived in the face of Council action under the Charter,²¹³ Iraq clearly violated these norms in its deliberate spillage of oil into the Gulf to foil a projected Coalition amphibious attack.²¹⁴

Since Coalition naval operations extended into the Red Sea as well as the Persian Gulf,²¹⁵ there was the potential of application of the Red Sea Convention and its Protocol as to treaty parties such as Saudi Arabia and Jordan.²¹⁶ If the two Conventions and Protocols, together with the 1982 LOS Convention, could be said to state customary norms that survived Council action under the Charter, there was a potential for violation by Coalition naval forces. The record is void as to both Red Sea and Gulf operations, and it is highly likely that there were no violations of customary norms by the Coalition in either theater.

4. The Convention and the Law of the Maritime Environment

This summary of Convention terms for protecting the marine environment demonstrates that Part XII and those terms included in other parts of the treaty are indeed prolix and comprehensive and there is little that is new law or unanticipated. Indeed, provisions related to the environment in many cases repeat principles seen in other contexts: the concept of "due regard" where there are two or more oceans uses at stake²¹⁷; confirmation of the sovereign immunity of warships, naval auxiliaries and other government vessels on non-commercial service and State aircraft²¹⁸; confirmation of application of the law of armed conflict in the context of environmental protection through application of other rules clauses, which do not include customary law of the environment as part of "other rules"²¹⁹; the same usage of "peaceful purposes" language in connection with the Area as on the high seas generally.²²⁰ Approval of the use of anticipatory self-defense against an environmental threat, previously stated in earlier treaties,

is some precedent for the concept of anticipatory self-defense in the context of the inherent right to self-defense mentioned in the Charter.²²¹

Other Persian Gulf States could possibly have asserted claims during the Tanker War if the belligerents' attacks on Gulf shipping caused slicks that threatened their interests, or if the attacks on the oil terminals, including that on Nowruz in 1983, raised the same threat.²²² A similar analysis obtains for the Kuwait Convention and its Protocol.²²³

Whether the deliberate flood by Iraq during the 1990-91 conflict could have been a predicate for similar claims depends on whether the law of the sea was superseded by the law of the Charter, and particularly the effect of U.N. Security Council decisions.²²⁴ A similar analysis would obtain under the regional conventions.²²⁵ Although there was the potential for applying the same law to Coalition operations, there is no indication that there were violations by Coalition naval forces.²²⁶

Apparently these issues were not advanced in either war, but as the Convention is accepted by more States, either as treaty law or as customary norms, these claims may be raised in the future, particularly if the Convention is buttressed by similar terms in regional and bilateral agreements, although the Convention's norms trump any to the contrary in these treaties.²²⁷

This cursory review of a complex body of law raises the double question of the relationship between the law of the maritime environment and the general law of the sea, perhaps under a "due regard" analysis, and the relationship between the law of the environment and the law of armed conflict, perhaps also on a "due regard" basis. This is complicated by the Convention's placement of some environmental norms within Part XII, the general standards, and its sprinkling others throughout the treaty.²²⁸ How do these bodies of law—the law of the maritime environment, the general law of the sea, and the law of armed conflict—interrelate? The Convention gives no clear answer on this issue.

III. GENERAL CONCLUSIONS

If the 1982 LOS Convention is a "constitution" for the law of the sea where the law of armed conflict is not involved, its provisions for protecting the marine environment could be said to be a seagoing "bill of rights" for the environment. Treaties varying from Convention environmental protection provisions are subject to the Convention's terms for those States that are party to it.²²⁹ Custom may compete with the Convention in the future, and *jus cogens* and U.N. Charter norms may supersede part of it as well.²³⁰

Customary norms, first codified in the 1958 LOS Conventions, confirming sovereign immunity for warships, naval auxiliaries and other vessels on government non-commercial service and State aircraft, are affirmed in the 1982 Convention and have been repeated in regional agreements.²³¹ Similarly,

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recognition of the law of armed conflict and its component, the law of naval warfare, as applicable in certain situations, is confirmed in the Convention's navigational articles and its environmental provisions.²³² The principle of "due regard" for competing oceans uses, particularly on the high seas, has been carried forward into the 1982 Convention.²³³

What is new is a complex, prolix protection for the maritime environment. The fundamental issue has become the relationship of this relatively new body of law with the general law of the sea and the law of armed conflict.

Notes

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1. Elmer-Dewitt, *A Man-Made Hell on Earth*, Time, Mar. 18, 1991, at 36.

2. For other accounts, which in most cases rely on contemporaneous media reports, of assaults on the environment during the 1990-91 conflict, see generally U.S. DEPARTMENT OF DEFENSE, FINAL REPORT TO CONGRESS: CONDUCT OF THE PERSIAN GULF WAR 147, 624-25 (1992) [hereinafter DOD REPORT]; Edwards, *The Iraqi Oil "Weapon" in the 1991 Gulf War: A Law of Armed Conflict Analysis*, 40 Nav. L. Rev. 105, 108-10 (1991); Leibler, *Deliberate Wartime Environmental Damage: New Challenges for International Law*, 23 Cal. W. Int'l L.J. 67-68 (1992); Low & Hodgkinson, *Compensation for Wartime Environmental Damage: Challenges to International Law After the Gulf War*, 35 Va. J. Int'l L. 405, 410-12 (1995); Okorodudu-Fubara, *Oil in the Persian Gulf War: Legal Appraisal of an Environmental Disaster*, 23 St. Mary's L.J. 123, 129 (1991); Lijnzaad & Tanja, *Protection of the Environment in Times of Armed Conflict: The Iraq-Kuwait War*, 1993 Neth. Int'l L. Rev. 169, 170-71; Plant, *Introduction*, in ENVIRONMENTAL PROTECTION AND THE LAW OF WAR: A "FIFTH" GENEVA CONVENTION ON THE PROTECTION OF THE ENVIRONMENT IN TIME OF ARMED CONFLICT (Plant ed. 1992) at 3 [hereinafter ENVIRONMENTAL PROTECTION]; Roberts, *Environmental Destruction in the 1991 Gulf War*, 32 Int'l R. Red Cross 538, 540-49 (1992); Salter, *Environmental Legal Issues Arising from the Gulf Conflict*, 8 Oil & Gas L. & Tax. Rev. 348, (1990); Sharp, *The Effective Deterrence of Environmental Damage During Armed Conflict: A Case Analysis of the Persian Gulf War*, 137 Mil. L. Rev. 1, 40-41 (1992); Zedalis, *Burning of the Kuwaiti Oilfields and the Laws of War*, 24 Vand. J. Transnat'l L. 711, 713 (1991); Edgerton, Comment, *Eco-Terrorist Acts During the Persian Gulf War: Is International Law Sufficient to Hold Iraq Liable?*, 22 Ga. J. Int'l & Comp. L. 151, 153 (1992).

3. See Roberts, *Environmental Issues in International Armed Conflict: The Experience of the Gulf War*, Chap. XIV, *infra*.

4. Walker, *State Practice Following World War II, 1945-1990*, in TARGETING ENEMY MERCHANT SHIPPING 121, 159 (Nav. War C. Int'l L. Stud., v. 65, Grunawalt ed. 1993) at 121, 159; Okorodudu-Fubara, *supra* n. 2, at 129; Salter, *supra* n. 2 at 349, estimates the leakage was 30,000 tons of crude oil per day, considerably more than the summary of media accounts.

5. Walker, *supra* n. 4, at 158.

6. *Id.* at 161; *Chronology 1986*, 65 Foreign Aff. 653, 672-76 (1987).

7. Walker, *supra* n. 4, at 165; HAYES, NAVAL RULES OF ENGAGEMENT: MANAGEMENT TOOLS FOR CRISIS (1989) 48-49; McNeill, *Neutral Rights and Maritime Sanctions: The Effects of Two Wars*, 31 Va. J. Int'l L. 631, 638-39 (1991); Peace, *Remarks*, in Panel, *Neutrality, the Rights of Shipping and the Use of Force in the Persian Gulf War (Part I)*, 1988 Proc. Am. Soc'y Int'l L. 148, 152 (1990); Peace, *Major Maritime Events in the Persian Gulf Between 1984 and 1991: A Juridical Analysis*, 31 Va. J. Int'l L. 545, 557-58 (1991); N.Y. Times, Oct. 20, 1987, at A10; see also letter of President Reagan to House Speaker Wright, Oct. 20, 1987, 23 Weekly Comp. of Pres. Docs. 1206 (1987).

8. Walker, *supra* n. 4, at 159-66, citing *inter alia* Fenrick, *The Military Objective and the Principle of Distinction in the Law of Naval Warfare*, in BOCHUMER SCHRIFTEN ZUR FRIEDENSICHERUNG UND ZUM HUMANITÄREN VOLKERRECHT (Heinegg ed., v. 7, 1991) at 1, 20; see also Fenrick, *Legal Aspects of Targeting in the Law of Naval Warfare*, 1991 Can. Y.B. Int'l L. 238, 260.

9. Over 200 merchant mariners died. Hoffman, *Neutral Mariners and Humanitarian Law: A Precedent for Protecting Neutrals in Armed Conflict*, 1992 Int'l Rev. Red Cross 274, 285-86; Russo, *Neutrality at Sea in Transition: State Practice in the Gulf War as Emerging International Customary Law*, 19 Ocean Devel. & Int'l L. 381, 397 (1988); see also Wiswall, *Remarks*, in Panel, *Neutrality, the Rights of Shipping and the Use of Force in the Persian Gulf War (Part II)*, 1988 Proc. Am. Soc'y Int'l L. 594-95 (1990); Wiswall, *Neutrality, the Rights of Shipping and the Use of Force in the Persian Gulf*, 31 Va. J. Int'l L. 619, 621 (1991).

10. See generally *Iraqi Symposium*, 15 S. Ill. L.J. 411 (1991); Schachter, *United Nations Law in the Gulf Conflict*, 85 A.J.I.L. 452 (1991); Walker, *The Crisis Over Kuwait, August 1990-February 1991*, in *Symposium on International Law and the Rules of War: The Crisis Over Kuwait*, 1991 Duke J. Comp. & Int'l L. 1, 25, 29-40.

11. DOD REPORT, *supra* n. 2, at 624-25; MOORE, *CRISIS IN THE GULF: ENFORCING THE RULE OF LAW* (1992) at 78-79; Edgerton, *supra* n. 2, at 152; Edwards, *supra* n. 2, at 105-08; Lijnzaad & Tanja, *supra* n. 2, at 170; Low & Hodgkinson, *supra* n. 2; Okorodudu-Fubara, *supra* n. 2, at 129-30, 132-36; Plant, *Introduction*, in *ENVIRONMENTAL PROTECTION*, *supra* n. 2, at 3; Plant, *Legal Aspects of Marine Pollution During the Gulf War*, 7 Int'l J. Estuarine & Coastal Law 217-18 (1992) [hereinafter *Legal Aspects*]; Sharp, *supra* n. 2, at 41-42; Zedalis, *supra* n. 2, at 713. Iraq's shelling Saudi Arabia's Khafji oil facilities in late January 1991 resulted in leakage into the Gulf on Saudi Arabia's north coast; this has been characterized as collateral damage. Plant, *supra* at 218.

12. See generally FRIEDMAN, *DESERT VICTORY: THE WAR FOR KUWAIT* (1991) ch. 4; Walker, *supra* n. 10, at 35-36.

13. FRIEDMAN, *supra* n. 12, at 209, 211-13, 361-64; MELIA, "DAMN THE TORPEDOES": A SHORT HISTORY OF U.S. NAVAL MINE COUNTERMEASURES, 1777-1991, (1991) at 127-32.

14. Iraq arguably believed that smoke from oil fires, and perhaps heat and light from them, would confuse Coalition fire control systems and would blind Coalition pilots and gunners. The oil slick may have been designed to impede or stop an amphibious assault by naval and marine forces on beaches near Kuwait City. There was also the possibility that the oil would clog desalination plants in Saudi Arabia and thereby deprive the civil population and Coalition forces of water supply. Although some Coalition weapons systems were affected, the oil fires were not a major problem, the threatened amphibious assault was a Coalition ruse to pin down Iraqi defenders. The flooding may have been Iraqi retaliation to Coalition air strikes against the homeland. DOD REPORT, *supra* n. 2, at 147, 624-25; Edgerton, *supra* n. 2, at 132-33; Edwards, *supra* n. 2, at 117; Leibler, *supra* n. 2, at 127-28; Low & Hodgkinson, *supra* n. 2; Okorodudu-Fubara, *supra* n. 2, at 129-32; Plant, *Legal Aspects*, *supra* n. 11, at 223, noting that Iraq might claim that its action had a military objective.

15. See generally Leibler, *supra* n. 2, at 127-28; Okorodudu-Fubara, *supra* n. 2, at 132-41; Edgerton, *supra* n. 2, at 152-54.

16. Leibler, *supra* n. 2, at 126-27.

17. Okorodudu-Fubara, *supra* n. 2, at 138.

18. See Walker, *supra* n. 4, at 166. Few if any merchant ships were hit by hostile fire during the 1990-91 war; a couple of Coalition warships were mined, and Iraqi maritime forces, including captured Kuwaiti assets, were sunk. See generally DOD REPORT, *supra* n. 2, at 97, 157, 188-90, 193-96, 199-208; MELIA, *supra* n. 13, at 128-29.

19. 2 O'CONNELL, *THE INTERNATIONAL LAW OF THE SEA* (Shearer ed. 1984) at 984.

20. In 1926, the Preliminary Conference on Oil Pollution of Navigational Waters produced a Draft Convention, reprinted in 1 FOREIGN REL. OF THE U.S.: 1926, at 238, 245 (1941). No government signed it, but some shipowners signed a "gentleman's agreement" not to discharge oily water within 50 miles of a coast. The draft convention became the basis for the Convention for Prevention of Pollution of the Sea by Oil, May 12, 1954, 12 U.S.T. 2989, 327 U.N.T.S. 3 [hereinafter 1954 Oil Pollution Convention], amended Apr. 11, 1962, 17 *id.* 1523, 600 U.N.T.S. 332, Oct. 21, 1969, 28 *id.* 1205, Oct. 12, 1971, reprinted in 2 WALLACE, *THE MARINE MAMMAL COMMISSION COMPENDIUM OF SELECTED TREATIES, INTERNATIONAL AGREEMENTS, AND OTHER RELEVANT DOCUMENTS ON MARINE RESOURCES, WILDLIFE, AND THE ENVIRONMENT* (1994) at 1693; Oct. 15, 1971, reprinted in *id.* 1695. COLOMBOS, *THE INTERNATIONAL LAW OF THE SEA* (6th rev. ed. 1967) at Sec. 445; 4 NORDQUIST ET AL., *UNITED NATIONS CONVENTION ON THE LAW OF THE SEA 1982: A COMMENTARY* (1991) at 4. Environmental warfare is equally old. See Okorodudu-Fubara, *supra* n. 2, at 142-43.

21. Convention for Safety of Life at Sea, Jan. 20, 1914, 219 Consol. T.S. 177 [hereinafter 1914 SOLAS].

22. *E.g.* Convention on Civil Liability for Oil Pollution Damage, Nov. 29, 1969, [hereinafter Civil Liability Convention], 973 U.N.T.S. 3, supplemented by Protocol, Nov. 19, 1976, reprinted in 16 I.L.M. 617 (1977), a response to the 1967 *Torrey Canyon* grounding. Healy, *The C.M.I. and IMCO Draft Conventions on Civil Liability for Oil Pollution*, 1 J. Mar. L. & Com. 93 (1969). The Convention, *supra*, was modified by a Protocol of May 25, 1984, reprinted in 6 BENEDICT ON ADMIRALTY (7th ed. rev., Wiswall ed. 1995), Doc. 6A and a Protocol of Nov. 27, 1992, reprinted in *id.*, Doc. 6B; neither are in force for the United States. The Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, Nov. 29, 1969, 26 U.S.T. 765, 970 U.N.T.S. 212 [hereinafter 1969 Intervention Convention], also was a response to *Torrey Canyon*; it has been amended by the Protocol Relating to Intervention on the High Seas in Cases of Marine Pollution by Substances Other than Oil, Nov. 2, 1973, T.I.A.S. No. 10561, reprinted in 13 I.L.M. 605 (1973) [hereinafter 1973 Intervention Protocol]. The Intervention on the High Seas Act, 33 U.S.C. §§ 1471-78 (1994) implements the Convention and its Protocol. See also 2 O'CONNELL, *supra* n. 19, at 1006-07; SCHOENBAUM, *ADMIRALTY AND MARITIME LAW* (2d ed. 1994) § 16-1 at 825.

23. In 1970, however, Richard A. Falk, told a Naval War College audience that the *Torrey Canyon* spill was the "Hiroshima" of the Ecological Age. See Falk, *New Trends in International Law: The Challenges of the Ecological Age*, Nav. War C. Rev. 18, 21 (1970).

24. Convention on Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques, May 18, 1977, 31 U.S.T. 333; 1108 U.N.T.S. 152 [hereinafter ENMOD Convention].

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25. Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to Protection of Victims of International Armed Conflicts, June 8, 1977, 1125 U.N.T.S. 3; *see also* Protocol Additional to Geneva Conventions of 12 August 1949, and Relating to Protection of Victims of Non-International Armed Conflicts, June 8, 1977, *id.* 609. Although the United States is likely to ratify Additional Protocol II, the Reagan Administration had serious reservations concerning Additional Protocol I and did not seek U.S. Senate advice and consent for it. Letter of Transmittal from President Reagan to the U.S. Senate, Jan. 29, 1987; Letter of Submittal from Secretary of State Shultz to President Reagan, Dec. 13, 1986, in Message from the President of the United States Transmitting the Protocol II Additional to the Geneva Conventions of August 12, 1949, and Relating to the Protection of Victims of Noninternational Armed Conflicts, Concluded at Geneva on June 10, 1977, S. Treaty Doc. No. 100-2, 100th Cong., 1st Sess. (1987), *reprinted in* 26 I.L.M. 561 (1987). Many Additional Protocol I signatories filed declarations or reservations.

26. Convention for Amelioration of the Condition of Wounded and Sick in Armed Forces in the Field, Aug. 12, 1949, 6 U.S.T. 3114; 75 U.N.T.S. 31; Convention for Amelioration of Wounded, Sick and Shipwrecked Members of Armed Forces at Sea, Aug. 12, 1949, *id.* 3217; 75 U.N.T.S. 85 [hereinafter Second Geneva Convention]; Convention Relative to Treatment of Prisoners of War, Aug. 12, 1949, *id.* 3316; 75 U.N.T.S. 135; Convention Relative to Protection of Civilian Persons in Time of War, Aug. 12, 1949, *id.* 3516; 75 U.N.T.S. 287 [hereinafter Fourth Convention], provisions of which bear, directly or indirectly, on environmental issues during armed conflict.

27. U.N. S.C. Res. 687, U.N. Doc. S/RES/687 (1991), *reprinted in* 30 I.L.M. 846 (1991); U.N. General Assembly Resolution 47/37 (1992) also declared that existing international law prohibits environmental damage and depletion of natural resources, e.g. destruction of oil wells and releasing oil into the sea as occurred during the 1990-91 war.

28. *See generally* BIRNIE & BOYLE, *INTERNATIONAL LAW AND THE ENVIRONMENT* (1994) at 128; Diederich, "Law of War" and Ecology - A Proposal for a Workable Approach to Protecting the Environment Through the Law of War, 136 Mil. L. Rev. 137, 160 (1992); Lijnzaad & Tanja, *supra* n. 2, at 189-200; Morris, *Protection of the Environment in Wartime: The United Nations General Assembly Considers the Need for a New Convention*, 27 Int'l Law. 775 (1993); Sharp, *supra* n. 2, at 3; Plant, *Elements of a "Fifth Geneva" Convention on the Protection of the Environment in Time of Armed Conflict*, in ENVIRONMENTAL PROTECTION, *supra* n. 2, at 37; Plant, *Government Proposals and Future Prospects*, in *id.* 170; Plant, *Legal Aspects*, *supra* n. 11, at 229-31; Plant, *Responses to the London Conference and the Ottawa Conference of Experts on the Use of the Environment as a Tool of Conventional Warfare, 10-12 July 1991*, in ENVIRONMENTAL PROTECTION, *supra* at 161; Terry, *The Environment and the Laws of War: The Impact of Desert Storm*, 45 Nav. War C. Rev. 60, 65 (1992).

29. U.N.G.A. Res. 47/37, *supra* n. 27; Morris, *supra* n. 28, at 780.

30. GROUP OF INTERNATIONAL LAWYERS & NAVAL EXPERTS, *SAN REMO MANUAL ON INTERNATIONAL LAW APPLICABLE TO ARMED CONFLICTS AT SEA* (Doswald-Beck ed. 1995) [hereinafter San Remo Manual], analyzed by Doswald-Beck, *The San Remo Manual on International Law Applicable to Armed Conflicts at Sea*, 89 A. J. I. L. 192 (1995), the first compilation of the law of naval warfare since the London Declaration Concerning the Laws of Naval War, Feb. 26, 1909 [hereinafter London Declaration], *reprinted in* THE LAW OF NAVAL WARFARE: A COLLECTION OF AGREEMENTS AND DOCUMENTS WITH COMMENTARIES (Ronzitti ed. 1988) at 223 [hereinafter LAW OF NAVAL WARFARE], an unratified multilateral treaty, and Institut de Droit International, *Oxford Manual of Naval War* (1913) [hereinafter Oxford Manual], *reprinted in* LAW OF NAVAL WARFARE, *supra* at 277. When World War I began, France and Russia tried to comply with the Declaration; Germany and Austria-Hungary adopted parts; the United Kingdom adopted it with additions and modifications, which were imitated by France, Italy and Russia. The Declaration became a propaganda issue and after further modifications was withdrawn in 1916. The United Kingdom explained that it was returning to the historic and admitted rules of the law of nations. 2 O'CONNELL, *supra* n. 19, at 1104; *see also* COLOMBOS, *supra* n. 20, §§ 503-06. Today, the Declaration is considered to be a mixed bag of accepted rules, plus principles no longer relevant, in modern sea warfare. STONE, *LEGAL CONTROLS OF INTERNATIONAL CONFLICT* (2d ed. 1959) at 109; Kalshoven, *Commentary*, in LAW OF NAVAL WARFARE, *supra* at 257, 273-74. Nor did the Oxford Manual achieve its goal of restating the rules. Verri, *Commentary*, in *id.* at 329, 340. Before and after these publications, naval powers have published compilations that have received acceptance by commentators, albeit with differing views on some points. *See, e.g.,* U.S. Department of the Navy, *Commander's Handbook on the Law of Naval Operations*, NWP 9 (Rev. A)/FMFM 1-10 [hereafter NWP 9 (Rev. A)], analyzed in THE LAW OF NAVAL OPERATIONS (Nav. War C. Int'l L. Stud., v. 64, Robertson ed. 1991). Sources such as the Declaration, the Oxford Manual, the San Remo Manual and NWP 9A, can strengthen the authority of custom or general principles and are secondary sources in any event. I.C.J. Statute, Art. 38(1); RESTATEMENT OF FOREIGN RELATIONS LAW OF THE UNITED STATES secs. 102-03 (1987) [hereinafter Restatement (Third)]; BROWNIE, *PRINCIPLES OF PUBLIC INTERNATIONAL LAW* (4th ed. 1990) at 5.

31. Convention on the Continental Shelf, Apr. 29, 1958 [hereinafter Continental Shelf Convention], 15 U.S.T. 471, 499 U.N.T.S. 311; Convention on the High Seas [hereinafter High Seas Convention], Apr. 29, 1958, 13 *id.* 2312; 450 U.N.T.S. 82; Convention on Fisheries and Conservation of the Living Resources of the High Seas, Apr. 29, 1958 [hereinafter Fishery Convention], 17 *id.* 138, 559 U.N.T.S. 285; Convention on the Territorial Sea and Contiguous Zone, Apr. 29, 1958 [hereinafter Territorial Sea Convention], 15 *id.* 1606; 516 U.N.T.S. 205, [collectively cited hereinafter as the 1958 LOS Conventions]. The preamble of the High Seas Convention declares that it restates

customary international law, and is considered to restate customary law. Many, but not all, of the provisions of the other Conventions reflect customary international law. Annotated Supplement to NWP 9 (Rev. A), *supra* n. 30, para. 1.1 at 1-2 n. 4; cf. 1 O'CONNELL, *THE INTERNATIONAL LAW OF THE SEA* (Shearer ed. 1982) at 385, 474-76.

32. *E.g.*, Convention for Regulation of Whaling, Sept. 13, 1931, 49 Stat. 3079; 155 L.N.T.S. 349, supplemented by Convention for Regulation of Whaling, Dec. 2, 1946, 62 *id.* 1716; 161 U.N.T.S. 72, modified by Protocol, Nov. 19, 1956, 10 U.S.T. 952; 338 U.N.T.S. 366. There are many amendments to the Protocol Schedule. See U. S. Department of State, *TREATIES IN FORCE* (1995) 443-44 [hereinafter TIF].

33. *E.g.*, 1914 SOLAS, *supra* n. 21, applying only to passenger ships; Regulations for Preventing Collisions at Sea, July 15, 1972, 28 U.S.T. 3459; 1050 U.N.T.S. 16, [collectively hereinafter 1972 COLREGS], *reprinted in part as a composite document in* 6 BENEDICT, *supra* n. 22, Doc. 3-4; Convention for Safety of Life at Sea, Nov. 1, 1974, 32 U.S.T. 47, amended by Protocol, Feb. 17, 1978, 32 U.S.T. 5577 and as further amended; Proces-verbal of Rectification to SOLAS 1974, T.I.A.S. 10626, and other amendments [hereinafter 1974 SOLAS], *reprinted and summarized in* 6B & 6C BENEDICT, *supra*, Docs. 14-1, 14-2, 14-6-14-20. What began as a single treaty in 1914 to regulate passenger liner safety, and thereby minimize losses by sinkings and therefore pollution of the sea from fuel (*e.g.* oil) and cargoes, has expanded into two sets of international agreements, SOLAS (dealing primarily with internal safety of vessels) and COLREGS (establishing rules for safe navigation of vessels in relation to each other and thereby contributing to environmental protection through collision minimization), which contribute indirectly to a cleaner maritime environment. Before becoming party to these agreements, many States had legislation governing rules of the road, *e.g.* Act to Adopt Regulations for Preventing Collisions at Sea, ch. 802, 26 Stat. 320, which collectively could be argued to be State custom on the point. BROWNIE, *supra* n. 30, at 5. Today, national legislation implements the agreements for many countries, including navigation of internal waters, although the 1972 COLREGS, *supra*, rule 1(b), 28 U.S.T. at 3467, allows States to declare national rules for internal waters. The United States has special internal waters rules. See Inland Rules, 33 U.S.C. §§ 2001-38 (1994); demarcation lines are published in 33 C.F.R. §§ 80.01-80.175 (1994). Of particular interest to navies in reducing collision risks, and therefore the risk of pollution resulting from accidents, are incidents at sea agreements, *e.g.*, Agreement on Prevention of Incidents on and over the High Seas, May 25, 1972, USSR-U.S., 23 U.S.T. 1168; 852 U.N.T.S. 151, and Protocol; May 22, 1973, 24 U.S.T. 1063, supplemented by Agreement on Prevention of Dangerous Military Activities, June 12, 1989, *reprinted in* 28 I.L.M. 877 (1989); see also 1 BROWN, *THE INTERNATIONAL LAW OF THE SEA* (1994) at 285; Nagle, Note, *The Dangerous Military Activities Agreement: Minimum Order and Superpower Relations on the World's Oceans*, 31 Va. J. Int'l L. 125 (1990).

34. Hague Convention (VIII) Relative to Laying of Automatic Submarine Contact Mines, Oct. 18, 1907, Arts. 1-6, 36 Stat. 2332, 2343-44; Hague Convention (IX) Concerning Bombarded by Naval Forces in Time of War, Oct. 18, 1907, Arts. 1-4, *id.* 2351, 2363-64.

35. Protocol for Prohibition of Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, June 17, 1925, 94 L.N.T.S. 65, with U.S. no-first-use reservation, Dec. 16, 1974, 26 U.S.T. 571-72.

36. Treaty on Protection of Artistic and Scientific Institutions and Historic Monuments, Apr. 15, 1935, Arts. 1-3, 49 Stat. 3267, 3268-70; 167 L.N.T.S. 289, 290 [hereinafter Roerich Pact].

37. See, *e.g.*, Fourth Geneva Convention, *supra* n. 26, Arts. 14-15, 18-19, 53, 147 and 154, whose provisions along with Hague IX, *supra* n. 34, are protective of the environment when its provisions covering safe areas for the wounded, sick and aged, and children, expectant mothers and mothers of small children, hospital areas, convoys, and destruction of property, coincidentally include environmentally sensitive areas.

38. Convention for Protection of Cultural Property in Event of Armed Conflict, and Protocol, May 14, 1954, 249 U.N.T.S. 215, superseding and supplementing Hague IX, *supra* n. 34, and Roerich Pact, *supra* n. 36.

39. U.N. Convention on the Law of the Sea, Dec. 10, 1982, U.N. Doc. A/CONF.62/122 (1982), *reprinted in* 21 I.L.M. 1261 (1982) [hereinafter 1982 LOS Convention].

40. Guyana ratified the 1982 LOS Convention, *supra* n. 39, on Nov. 16, 1993, and it is now in force for ratifying States. As of Feb. 23, 1995, 73 States had ratified the Convention. *Status of the Convention and Agreement*, 6 U.S. Dep't St. Dispatch Supp. No. 1, at 53 (1995). The Clinton Administration sent the Convention to the Senate for advice and consent, together with a supplemental protocol, commonly known as the "Boat Agreement," which would amend parts of the deep seabed articles. The United States had declined to sign the Convention in 1982 because of objectionable terms in articles dealing with deep seabed mining. See President of the United States, *Message Transmitting United Nations Convention on the Law of the Sea, with Annexes, Done at Montego Bay, December 10, 1982 (the "Convention"), and the Agreement Relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea of December 10, 1982, with Annex, Adopted at New York, July 28, 1994 (the "Agreement"), and Signed by the United States, Subject to Ratification, on July 28, 1994*, S. Treaty Doc. No. 103-39, 103d Cong., 2d Sess. (1994) [hereinafter S.Doc. 103-39], *reprinted in part in* 6 U.S. Dep't St. Dispatch Supp. No. 1, at 1-52 (1995). Many countries have consented to be bound by the Boat Agreement, have signed it, or have agreed to apply it provisionally. The United States is in the last category. *Status of the Agreement*, *supra*. The United States has recognized the Convention's navigational articles—the principal interface for the law of naval warfare and the law of the sea—as representing customary international law for over a decade. President Reagan, *United States Ocean Policy*, Mar. 10, 1983, 19 Weekly Comp.

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Pres. Doc. 383 (Mar. 14, 1983). Commentators generally agree that these Convention provisions reflect customary international law. *See, e.g.*, NWP 9 (Rev. A), *supra* n. 30, para. 1.1; Restatement (Third), *supra* n. 30, Part V, *Introductory Note*, at 3-5 (1987); *cf.* Moore, *Introduction to 1 NORDQUIST, UNITED NATIONS CONVENTION ON THE LAW OF THE SEA 1982: A COMMENTARY* (1985) at xxviii; Oxman, *International Law and Naval and Air Operations at Sea*, in *LAW OF NAVAL OPERATIONS*, *supra*, n. 30, at 19, 29; *but see* 1 O'CONNELL, *supra* n. 31, at 48-49. O'Connell researched *id.* through 1978, using drafts of the evolving Convention, but died before the final version was available. Shearer made changes and additions, publishing before final negotiations produced the Convention. Shearer, *Editor's Preface to id.*, at vii. Hence, O'Connell's volumes may reflect views of the decade before Restatement (Third), *supra*, was published. In 1983, the United States claimed a 200-mile exclusive economic zone (EEZ) in accordance with 1982 LOS Convention principles. Proclamation No. 5030, 48 Fed. Reg. 10605 (Mar. 10, 1983). In 1988, the United States claimed a 12-mile territorial sea in accordance with the Convention. Proclamation No. 5928, 54 *id.* 777 (Dec. 27, 1988). Analysis of the Convention as modified by the Boat Agreement has been favorable. *See Law of the Sea Forum: The 1994 Agreement on the Seabed Provisions of the Convention on the Law of the Sea*, 88 A. J. I. L. 687 (1994). U.S. Department of Defense, *National Security and the Convention on the Law of the Sea* (July 1994) urged advice and consent, stressing the Convention's importance for national security.

41. 1982 LOS Convention, *supra* n. 39, Art. 311(1), specifically declaring that the Convention prevails, as among States party to it, over the 1958 LOS Conventions, *supra* note 31.

42. Annotated Supplement to NWP 9 (Rev. A), *supra* n. 30, Table ST1-1; U.N. Pub. Sales No. E.83.V.5, *supra* n. 39, at 190.

43. Vienna Convention on the Law of Treaties, May 23, 1969 [hereinafter Vienna Conventions], Art. 18, 1155 U.N.T.S. 331, 336; SINCLAIR, *THE VIENNA CONVENTION ON THE LAW OF TREATIES* (2d ed. 1984) at 19, 42-44 (provisions may have gone beyond customary rules); Restatement (Third), *supra* n. 30, sec. 312(3), cmt. i & r.n.6; U.N.G.A. Res. 59a, 38 U.N. GAOR, Supp. No. 47, at 48 (1983) (calling on all States to refrain from actions undermining 1982 LOS Convention, *supra* n. 39).

44. The United States and many commentators have said that the Convention's navigational articles restate customary law. *See supra* n. 40.

45. Diederich, *supra* n. 28, at 43-44, notes that the U.N. Charter has no direct reference to environmental concerns but that this could be subsumed under *id.*, Arts. 1(3)-(4).

46. U.N. Charter, Art. 103. This applies to U.N. Members' obligations under U.N. Security Council decisions pursuant to Arts. 25, 48. Reisman, *The Constitutional Crisis in the United Nations*, 87 A.J.I.L. 83, 87 (1993). Art. 103's rule, analogous to the supremacy clause of U.S. Const., Art. VI with respect to the laws of the 50 states of the United States, is at variance with traditional treaty construction rules. Although later treaties on the same subject usually supersede earlier ones, the reverse—*i.e.*, earlier treaties prevailing over later ones—is generally not true unless the later agreement declares it is subject to the earlier one. *Cf.* Vienna Convention, *supra* n. 43 Arts. 5, 30; *see also* Restatement (Third), *supra*, n. 30 sec. 323; SINCLAIR, *supra*, n. 43, at 85-87, 94-95, 160, 184-85, 246.

47. 1982 LOS Convention, *supra* n. 39, Art. 237. Art. 237 is a *lex specialis* for Part XII of the Convention, *i.e.*, its provisions for protecting the marine environment. 4 NORDQUIST, *supra* n. 20, para. 237.7(a)(1991); 1982 LOS Convention, *supra*, Art. 311(5) permits such. 5 NORDQUIST, *UNITED NATIONS CONVENTION ON THE LAW OF THE SEA 1982: A COMMENTARY* para. 311.11, (Rosenne & Sohn eds. 1989) at 243; *see also* Charney, *The Marine Environment and the 1982 United Nations Convention on the Law of the Sea*, 28 Int'l Law. 879, 884 (1994). Art. 237(1) states a recognized way to preserve the force of a prior treaty, subject to the consistency limitation of Art. 237(2). Vienna Convention, *supra* n. 43, Art. 30(2). 1 OPPENHEIM'S INTERNATIONAL LAW (Jennings & Watts eds. 1992) sec. 590 at 1213 [hereinafter 1 OPPENHEIM]; Restatement (Third), *supra* n. 30, sec. 323(1); SINCLAIR, *supra* n. 43, at 97-98.

48. 1982 LOS Convention, *supra* n. 29, Art. 311(2). Presumably this includes 1972 COLREGS and 1974 SOLAS, *supra*, n. 33.

49. This might be contrasted with 1982 LOS Convention, *supra* n. 39, Art. 311(1), expressly superseding the 1958 LOS Conventions, *supra* n. 31, where 1982 Convention parties are also parties to the 1958 agreements. If, in a particular situation, a country is party to the 1958 Conventions but is not party to the 1982 LOS Convention, and the other country is party to the 1982 Convention and was party to the 1958 Conventions, the 1958 rules apply. Vienna Convention, *supra* n. 43, Art. 30(4)(b); Restatement (Third), *supra* n. 30, sec. 323(3)(b); SINCLAIR, *supra*, n. 43 at 94. To the extent that custom, general principles or perhaps secondary sources such as court decisions or commentators would conflict with a treaty norm in either the 1982 or the 1958 treaties at issues, those conflicting rules would be thrown into the decision matrix. If the customary rule, principle or other source is the same as the treaty rule, the latter is strengthened. I.C.J. Statute, Arts. 38, 59; Vienna Convention, *supra*, Preamble, Arts. 38, 43 (recognizing the independent vitality of custom); BROWNIE, *supra* n. 30 at 12-19; D'AMATO, *THE CONCEPT OF CUSTOM IN INTERNATIONAL LAW* (1971) at 104-06, 114, 136, 164; VON GLAHN, *LAW AMONG NATIONS* (5th ed. 1986) at 25 (recognizing principles as a gap-filler); 1 OPPENHEIM, *supra* n. 47, sec. 11, at 33-36; Restatement (Third), *supra* n. 30, secs. 102-03 (recognizing principles as primarily a gap-filler); SCHACHTER, *INTERNATIONAL LAW IN THEORY AND PRACTICE* (1991) at 49-65, 74-81 (same); SINCLAIR, *supra* n. 43, at 6, 9-10, 102-03; Akehurst, *Custom as a Source of International Law*, 47 Brit. Y.B. Int'l

L. 1, 49-52 (1974); Robertson, *Contemporary International Law: Relevant to Today's World?*, 45 Nav. War C. Rev. 89, 91-94 (Summer 1992). High Seas Convention, *supra* n. 31, has been generally recognized as stating customary rules. To the extent that these principles carry forward into the 1982 LOS Convention, they stand on quite firm ground indeed. This is particularly important in the context of the relationship among the law of the sea, the law of armed conflict, and the emerging law of the environment as it applies to high seas operations.

50. 1982 LOS Convention *supra* n. 39, Arts. 192-237.

51. See generally, *e.g., id.*, Arts. 21(1)(f), 22(2), 23, 28(2), 33, 39(2)(b), 42(1)(a)-42(1)(b), 42(2)-42(5), 43(b), 44, 56(1)(b)(iii), 56(3), 60(1), 61-72, 80, 94(4)(c), 94(7), 116, 122-23, 145-46, 147(1), 147(2)(b), 147(c), 149, 233, 303; for further analysis see 2 NORDQUIST, UNITED NATIONS CONVENTION ON THE LAW OF THE SEA 1982: A COMMENTARY, (Nandan, *et al.* eds. 1993) paras. 22.1-22.9, 23.1-23.9, 39.1-39.10(L), 42.1-41.1.10(L), 43.1-43.8(e), 44.1-44.8(c), 61.1-61.12(k), 62.1-62.16(L), 63.1-63.12(f), 64.1-64.9(f), 65.1-65.16(i), 66.1-66.9(g), 67.1-67.8(e), 68.1-68.5(b), 69.1-69.17(h), 70.1-70.11(d), 71.1-71.9(c), 72.1-71.10(h), 303.1-303.10; S. Doc. 103-39, 6 U.S. Dep't St. Dispatch, Supp. No. 1, at 23, 25-28, 51; Restatement (Third), *supra* n. 30, secs. 457, r.n. 7; 461, cmt. e; 512; 523(1)(b)(ii) & cmt.d. Some provisions of the Convention echo the 1958 LOS Conventions. See, *e.g.*, Fishery Convention, *supra* n. 31, Arts. 1-8, 13; High Seas Convention, *supra* n.31, Arts. 10, 11(1), 13.

52. The Stockholm Conference also "had a great influence for later deliberations on the protection and preservation of the marine environment" in later U.N. Committees and in the 1982 LOS Convention negotiations. *Introduction*, para. XII.11, in 4 NORDQUIST, *supra* n. 20, at 8-9; Restatement (Third), *supra* n. 30, Part IV, *Introductory Note*, at 99; see also BIRNIE & BOYLE, *supra* n. 28, at 39-53; Petsonik, *The Role of the United Nations Environment Programme (UNEP) in The Development of International Environmental Law*, 5 Am. U.J. Int'l L. & Pol. 351 (1990). The Conference Report included a Declaration on the Human Environment [hereinafter Stockholm Declaration] with 26 Principles, an Action Plan for the Human Environment, and various resolutions. See 11 I.L.M. 1416 (1972). Principle 6 states in part that "[D]ischarge of toxic . . . or other substances and the release of heat in such quantities or concentrations as to exceed the capacity of the environment to render them harmless, must be halted . . . to ensure that serious or irreversible damage is not inflicted on ecosystems." Principle 7 declares that "States shall take all possible steps to prevent pollution of the seas by substances . . . liable to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea. . . ." Principle 21 says States must achieve a balance between exploiting their resources and their responsibility to see that this does not harm others' environments:

States have, in accordance with the [U.N. Charter] and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.

Principle 22 would require "States [to] co-operate to develop further the international law regarding liability and compensation for the victims of pollution and other environmental damage caused by activities within the jurisdiction or control of such States to areas beyond their jurisdiction. . . ." Principle 26 protested nuclear weapons, and other weapons of mass destruction, with a plea for agreements to eliminate and destroy them. *Id.*, at 1418, 1420-21. U.N. Environmental Programme Participation Act of 1973, Pub. L. No. 93-188, sec. 2, 87, Stat. 713, declared U.S. Congressional policy "to participate in coordinating efforts to solve environmental problems of global and international concern. . . ." Two years later, U.N.G.A. Res. 3281, *Charter of Economic Rights and Duties of States*, at Arts. 29-30, *reprinted in* 14 I.L.M. 251 (1975), reiterated nations' duties to use the sea for peaceful purposes to preserve the environment. These resolutions, except insofar as they restated customary or conventional law, were not binding on U.N. Members. U.N. Charter, Arts. 10, 14. See *infra* n. 62 and accompanying text.

53. Kuwait Regional Convention for Co-operation on Protection of the Marine Environment from Pollution, Apr. 24, 1978, 1140 U.N.T.S. 133 [hereinafter Kuwait Regional Convention]; Protocol concerning Co-operation in Combating Pollution by Oil and Other Harmful Substances in Case of Emergency, Apr. 24, 1978, 1140 U.N.T.S. 201 [hereinafter Kuwait Protocol]. All countries bordering the Persian Gulf were signatories: Bahrain, Iran, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, U.A.E. The Convention and Protocol went into force July 1, 1979. Salter, *supra* n. 2, at 351. Kuwait Regional Convention. Protocol on Pollution Resulting from Exploration and Exploitation of the Continental Shelf, Mar. 29, 1989, has been signed. 1 BROWN, *supra* n. 33, at 355-56.

54. Convention for Conservation of the Red Sea and Gulf of Aden Environment, Feb 14, 1982, *reprinted in* 2 WALLACE, *supra* n. 20, at 2282 [hereinafter Red Sea Convention]; Protocol Concerning Regional Co-operation in Combating Pollution by Oil and Other Harmful substances in Cases of Emergency, Feb 14, 1982 [hereinafter Red Sea Protocol], *reprinted in id.* at 2293. Signatories include Jordan, Palestine Liberation Organization for Palestine, People's Democratic Republic of Yemen, Saudi Arabia, Somalia, Sudan and Yemen Arab Republic, all bordering the Red Sea and Gulf of Aden, but any Arab League member can accede to the Convention. Red Sea Convention, *supra*, Preamble, Art. 26(2), *id.* at 2282, 2291.

55. See generally, DOD REPORT, *supra* n. 2, at 48-63, 88-181, 221.

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56. *E.g.*, Kuwait Regional Convention, *supra* n. 53, Arts. 16-18; Kuwait Protocol, *supra* n. 53, Arts. 3, 5-13; Red Sea Convention, *supra* n. 54, Arts. 16-20, 22, 24; Red Sea Protocol, *supra* n. 54, Arts. 3, 5-13. Another recent example, involving U.S. participation, is a package of agreements governing protection of the South Pacific Ocean. Convention for Protection of Natural Resources and Environment of the South Pacific Region, Nov. 24, 1986, *reprinted in* 26 I.L.M. 38 (1986); Protocol for Prevention of Pollution of the South Pacific Region by Dumping, Nov. 24, 1986, *reprinted in id.*, 65 (1986); Protocol Concerning Co-operation in Combating Pollution Emergencies in the South Pacific Region, Nov. 24, 1986, *reprinted in id.*, 59 (1986); *see also* U.S. Understanding, S. Treaty Doc. 101-21, at 53.

57. *See, e.g.*, 1982 LOS Convention, *supra* n. 39, Arts. 23, 39, 41(5), 43(a), 94(4)(c), 94(5), 197, 200-02, 207-12, 217, 221-22, 303; *see also* 5 NORDQUIST *supra* n. 47, paras. 311.8m 311.11.

58. Vienna Convention, *supra* n. 43, Preamble, Arts. 38, 43.

59. *See generally* I.C.J. Statute, Arts. 38, 59; Restatement (Third), *supra* n. 30, §§ 102-03.

60. Military and Paramilitary Activities in and Against Nicaragua (Nicar. v. U.S.) [hereinafter *Nicaragua Case*], 1986 I.C.J. 14, 31-38, 91-135; *Corfu Channel Case* (U.K. v. Alb.), 1949 I.C.J. 4, 22.

61. Akehurst, *supra* n. 49, at 49-52. The 1982 LOS Convention, *supra* n. 39, Art. 22(1), seems to anticipate this possibility with respect to proportionate anticipatory action to ward off pollution threats. Art. 310 states:

Article 309 does not preclude a State, when signing, ratifying or acceding to this Convention, from making declarations or statements, however phrased or named, with a view, *inter alia*, to the harmonization of its laws and regulations with the provisions of this Convention, provided that such declarations or statements do not purport to exclude or to modify the legal effect of the provisions of this Convention in their application to the State.

Art. 309 forbids reservations or exceptions to the Convention and is the reason for the Boat Agreement, *supra* n. 40, to amend Part XI of the Convention. *See supra* n.40 and accompanying text. Such statements, taken collectively, arguably could articulate custom apart from the Convention. However, occasional presence of clear, contradictory authorizations for custom, *e.g.*, Art. 22(1), plus the "obscurity and uncertainty" of Art. 310's meaning—*cf.* 5 NORDQUIST, *supra* n. 47, para 310.5—indicate that custom and other sources can be considered alongside Convention norms. Certainly this is true for the law of naval warfare, largely customary in source, which enters through the "other rules" clauses, with which the Convention is replete.

62. U.N. Members must comply with Security Council "decisions" under U.N. Charter, Arts. 25, 41, 48; these supersede treaty obligations. *Id.*, Art. 103; Reisman, *Constitutional Crisis*, *supra* n. 46 at 87. The Council may also recommend action or call upon States for action pursuant to U.N. Charter, Arts. 39-41, or the General Assembly may recommend action under *id.*, Arts. 10, 14, but these resolutions do not have the binding force of decisions, although they may restate customary or treaty norms and thereby strengthen them. BAILEY, *THE PROCEDURE OF THE U.N. SECURITY COUNCIL* (2d ed. 1988) ch. 3.6; BROWNLIE, *supra* n. 30, at 5, 699-700; CASTENADA, *LEGAL EFFECTS OF UNITED NATIONS RESOLUTIONS* (Amoia trans. 1969) at ch.3.j; GOODRICH *et al.*, *CHARTER OF THE UNITED NATIONS* (3d rev. ed. 1969) 111-14, 141-45, 207-11, 290-314, 334-37, 614-17; Restatement (Third), *supra*, n. 30, secs. 102, cmt. g; 103(2)(d), cmt. c & f.n.2; SCHACHTER, *supra* n. 49, ch. 6; SIMMA, *THE CHARTER OF THE UNITED NATIONS: A COMMENTARY* (1994), at 236-42, 270-87, 409-18, 614-16, 618, 626-28, 631-35, 651, 1118-25.

63. *Jus cogens* is a fundamental norm that would override rules in treaties and custom, two primary sources of international law stated in, *e.g.*, I.C.J. Statute, Arts. 38, 59; Restatement (Second), *supra* n. 30, secs. 102-03. Its contours are vague and depend on a commentator's views, which can range from expansive (*e.g.*, those of the former U.S.S.R., whose jurisprudence may still have influence) to totally deprecatory. *See generally* Vienna Convention, *supra* n. 43, at 53, 64, considered by SINCLAIR, *supra* n. 43, at 17-18, 218-26, to be progressive development; ELIAS, *THE MODERN LAW OF TREATIES*, (1974) at 177-87; 1 OPPENHEIM, *supra* n. 47, secs. 2, at 8 & n. 2; Restatement (Third), *supra* n. 30 sec. 338(c); TUNKIN, *THEORY OF INTERNATIONAL LAW*, (Butler trans. 1974) at 98; Alexidze, *Legal Nature of Jus Cogens in Contemporary International Law*, 172 R.C.A.D.I. 219, 262-63 (1981); Hazard, *Soviet Tactics in International Law Making*, 7 Den. J. Int'l L. & Pol. 9, 25 (1977); Arechaga, *International Law in the Past Third of a Century*, 159 R.C.A.D.I. 1, 68 (1978); Weisburd, *The Emptiness of the Concept of Jus Cogens. As Illustrated by the War in Bosnia-Herzegovina*, 17 Mich. J. Int'l L. 1 (1995). The I.C.J. held in the *Nicaragua Case*, *supra* n. 60, that U.N. Charter, Art. 2(4), was customary law having the character of *jus cogens*. The 1979 U.S.S.R. invasion of Afghanistan, pursuant to a 1978 agreement, was condemned in part under Vienna Convention, *supra*, Art. 53 principles. States—International Status, Attributes & Types, 1979 Digest sec. 1, at 34, quoting Memorandum from Owen, U.S. Department of State Legal Adviser, to Christopher, Acting Secretary of State, Dec. 29, 1979. A more interesting issue, left unanswered by the Charter, is the place of customary law or general principles varying from the Charter's terms as a treaty. This was not resolved in the *Nicaragua Case*, *supra*. The Charter, Art. 103, speaks of "obligations" under treaties, and whether this includes custom and perhaps principles, is debatable. SIMMA, *supra* n. 62, at 1118-25, would argue for Charter supremacy. Perhaps 1 OPPENHEIM, *supra*, would agree if the Charter norm is *jus cogens* in nature. One competing factor is the force of national sovereignty; if U.N. Members gave up freedom to make treaties to the measure of U.N. Charter, Art. 103, that does not necessarily mean that they gave up the sovereign right to build contrary custom, under this theory. *See e.g.*, U.N. Charter, Arts. 2(1), 2(7); 1982 LOS Convention, *supra* n. 39, Art. 157(3); Vienna Convention, *supra* n.43, Preamble;

U.N. Secretary-General, *An Agenda for Peace: Report of the Secretary-General on the Work of the Organization*, U.N. Doc. A/47/277 S/2411 (1991), reprinted in 31 I.L.M. 956, 959 (1992); S.S. Lotus (Fr. v. Turk.), 1927 P.C.I.J. (Ser.A) 4, 18 [hereinafter *Lotus Case*]; S.S. Wimbledon (U.K. v. Ger.), 1923 *id.*, No. 1, at 15, 25; Declaration of Principles of International Law Concerning Friendly Relations Among States, U.N.G.A. Res. 2625, reprinted in 9 I.L.M. 1292; BROWNIE, *supra* n. 30, ch. 13; Anand, *Sovereign Equality of States in International Law*, 197 C.A.D.I. 9, 22-51, 189 (1986); Fitzmaurice, *The General Principles of International Law Considered from the Standpoint of the Rule of Law*, 92 *id.* 49-50 (1957); Lachs, *The Development and General Trends of International Law in Our Time*, 169 *id.* 1, 77-84 (1980); Waldock, *General Course on Public International Law*, 106 *id.* 1, 156-72 (1962).

64. Compare e.g., 1982 LOS Convention, *supra* n. 39, Preamble, Arts. 2(3) (territorial sea), 19, 21, 31 (innocent passage), 342(2) (straits transit passage), 45 (straits innocent passage, incorporation by reference of Arts. 19, 21, 31), 52(1) (archipelagic sea lanes passage), 58(1), 58 (3) (EEZs), 78(2) (continental shelf; coastal State cannot infringe or interfere with "navigation and other rights and freedoms of other States as provided in this Convention), 87(1) (high seas), 138 (the Area), 303(4) (archaeological, historical objects found at sea; "other international agreements and rules of international law regarding the protection of objects of an archaeological and historical nature"), with e.g., High Seas Convention, *supra* n. 31, Art. 2, Territorial Sea Convention, *supra* n. 31, Art. 1. Although the other 1958 LOS Conventions do not include specific "other rules" clauses, they state that they do not affect the status of waters above as high seas, in the case of the continental shelf, or other high seas rights, in the case of high seas fisheries. Continental Shelf Convention, *supra* n. 31, Arts. 1, 3, 15; Fishery Convention, *supra* n. 31, Arts. 1-8, 13.

65. 1982 LOS Convention, *supra* n. 39, Art. 87(1).

66. The General Assembly elects 34 members to the I.L.C. after nominations by governments. The 1958 LOS Conventions, *supra* n. 31, emerged through the I.L.C. See generally, BRIGGS, *THE INTERNATIONAL LAW COMMISSION* (1969); BROWNIE, *supra* n. 30 at 30-31; SCHACHTER, *supra* n. 49, at 66-69, 71-72; Briggs, *Reflections on the Codification of International Law by the International Law Commission and by Other Agencies*, 126 R.C.A.D.I. 233 (1969); Jennings, *The Progressive Development of International Law and Its Codification*, 24 Brit. Y.B. Int'l L. 301, 310-29 (1947); Lauterpacht, *Codification and Development of International Law*, 49 A.J.I.L. 16 (1955); Rosenne, *The International Law Commission, 1949-59*, 30 Brit. Y.B. Int'l L. 104 (1960).

67. International Law Commission, *Commentary on Vienna Convention on the Law of Treaties*, in Report of the Commission to the General Assembly, U.N. Doc. A/6309/Rev. 1 (1966) reprinted in 1962(2) Y.B. Int'l L. Comm'n 267-68; Briggs, *Unilateral Denunciation of Treaties: The Vienna Convention and the International Court of Justice*, 68 A.J.I.L. 51 (1974); Boczek, *Peaceful Purposes Provisions of the United Nations Convention on the Law of the Sea*, 20 Ocean Devel. & Int'l L. 359 (1989); Christol & Davis, *Cuban Quarantine: The Naval Interdiction of Offensive Weapons and Associated Material to Cuba*, 1961, 57 A.J.I.L. 525, 539-40 (1963); Davidson, *United States Protection of Reflagged Kuwaiti Vessels in the Gulf War: The Legal Implications*, 4 Int'l J. Estuarine & Coastal L. 173, 178 (1989); Fenrick, *Legal Aspects of the Falklands Naval Conflict*, 24 Mil. L. & L. of War Rev. 243, 245 (1983); Lowe, *The Commander's Handbook on the Law of Naval Operations and the Contemporary Law of the Sea in LAW OF NAVAL OPERATIONS*, *supra* n. 30, at 109, 132; Oxman, *The Regime of Warships Under the United Nations Conventions on the Law of the Sea*, 24 Va. J. Int'l L. 809, 811 (1984); Ronzitti, *The Crisis of the Traditional Law Regulating International Armed Conflicts at Sea and the Need for Its Revision in LAW OF NAVAL WARFARE*, *supra* n. 30, at 15; Russo, *Neutrality at Sea*, *supra* n. 9, at 384; Thorpe, *Mine Warfare at Sea - Some Legal Aspects of the Future*, 18 *id.* 255, 257 (1987); Wolfrum, *Reflagging and Escort Operations in the Persian Gulf: An International Law Perspective*, 29 Va. J. Int'l L. 386, 391-92 (1982). Apparent dissenters include 2 O'CONNELL, *supra* n. 19, at 1112-13, referring to *id.* 747-69, in the context of the nationality of merchant ships; Low & Hodgkinson, *supra* n. 2, at 421, who discuss Iraq's environmental protection obligations in the LOS context and say nothing about the clauses, although *id.* 438-42 elliptically seems to recognize the principle; Okorodudu-Fubara, *supra* n. 2, at 195-97; Rauch, *The Protocol Additional to the Geneva Conventions for the Protection of Victims of International Armed Conflicts and the United Nations Convention on the Law of the Sea: Repercussions on the Law of Naval Warfare: Report to the Committee on the Protection of Human Life in Armed Conflict of the Society for Military Law of War 22-49a* (July 1983) (manuscript in author's possession). 1 BROWN, *supra* n. 33, at 280 recognizes the similar "other rules" clauses pertaining to high seas rights but declares that "freedom of the high seas must be exercised under conditions laid down in the Convention and by other unspecified rules of international law." 3 UNITED NATIONS CONVENTION ON THE LAW OF THE SEA 1982: A COMMENTARY, (Nordquist ed. 1995) [hereinafter 3 NORDQUIST] at para. 87.9(i) states that "Uses of the high seas for military purposes—though restricted in other maritime zones, comes within the scope of the freedom of the high seas," citing to 1982 LOS Convention, *supra* n. 39, Arts. 19(2)(b), 19(2)(f), 52(2), (innocent passage). Similar clauses in High Seas Convention, *supra* n. 31, Art. 2, had been interpreted to include freedom to undertake scientific research, to explore or exploit high seas subsoil resources and to test nuclear weapons. These are now regulated by 1982 LOS Convention, *supra*, Parts XI & XIII; Treaty on Prohibition of Emplacement of Nuclear Weapons and Other Weapons of Mass Destruction on the Sea-bed and the Ocean Floor and in the Subsoil Thereof, Feb. 11, 1971, 23 U.S.T. 704; 955 U.N.T.S. 115 [hereinafter *Seabed Treaty*].

68. 1982 LOS Convention, *supra* n. 39, Art. 88. The Convention also says that Area use is reserved for peaceful purposes, and marine scientific research must be conducted for peaceful purposes. *Id.*, Arts. 141, 143(1), 147(2)(d),

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155, 240(a), 242(1), 246(3). Ensuing analysis will be confined to Art. 88; conclusions with respect to it apply *mutatis mutandis* to other “peaceful purposes” provisions. The language originated in Antarctic Treaty, Dec. 1, 1959, Art. 1(1), 12 U.S.T. 794, 795; 402 U.N.T.S. 71, 72 and is in Treaty on Principles Governing Activities of States in Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, Jan. 27, 1967, Art. 4, 18 *id.* 2410, 2413-14; 610 U.N.T.S. 205, 207 [hereinafter Space Treaty]; ENMOD Convention, *supra* n. 24, Art. 3(1), 31 *id.* at 336; 1108 U.N.T.S. at 153; Agreement Governing Activities of States on the Moon and Other Celestial Bodies, Dec. 5, 1979, Art. 3(1), 1363 U.N.T.S. 3, 22.

69. Restatement (Third), *supra* n. 30, § 521, cmt. b, citing U.N. Charter, Art. 2(4); 1982 LOS Convention, *supra* n. 39, Arts. 88 & 301, and referring to Restatement (Third), *supra*, § 905, cmt. g; accord, Russo, *Targeting Theory in the Law of Naval Warfare*, 30 Nav. L. Rev. 1, 8 (1992); see also 2 NORDQUIST, *supra*, n. 67, paras. 87.9(i), 88.1-88-7(d). Boczek, *supra* n. 67; Oxman, *Regime of Warships*, *supra* n. 67, at 814, 829-32; Parkerson, *International Legal Implications of the Strategic Defense Initiative*, 116 Mil. L. Rev. 67, 79-85 (1987).

70. U.N. Charter, Art. 103; see also *supra* n. 46 and accompanying text.

71. See *supra* nn. 46-49 and accompanying text.

72. U.N. Charter, Art. 51; see also S. Doc. 103-39, 6 U.S. Dep’t St. Dispatch, Supp. No. 1, at 51. There is a debate as to whether anticipatory self-defense, as opposed to “reactive” self-defense where an aggressor must strike the first blow before a right of self-defense is triggered, is permitted in the Charter era. The U.S. view, supported by many researchers, is that anticipatory self-defense is permissible in the Charter era under *Caroline Case* limitations, i.e. when there is a clear necessity that is instant, overwhelming and leaves no choice of peaceful means, see NWP 9A, *supra* n. 30, para. 4.3.2.1, citing *Caroline Case*, letter of U.S. Secretary of State Daniel Webster to U.K. Ambassador Lord Alexander B. Washburn, Aug. 6, 1842, 2 MOORE, DIGEST 411-12; letter of Secretary Webster to U.K. Minister Henry S. Fox, Apr. 24, 1841, in 1 SHEWMAKER, THE PAPERS OF DANIEL WEBSTER: DIPLOMATIC PAPERS (1983) at 58, 67. Some scholars take the opposite view. See generally BOWETT, SELF-DEFENSE IN INTERNATIONAL LAW (1958) at 187-93; BROWNLEE, INTERNATIONAL LAW AND THE USE OF FORCE BY STATES (1963) at 257-61, 275-78, 366-67; DINSTEN, WAR, AGGRESSION AND SELF-DEFENSE (1988) at 86, 174-79; HENKIN, INTERNATIONAL LAW: POLITICS AND VALUES (1995) at 121-25; MCDUGALL & FELICIANO, LAW AND MINIMUM WORLD PUBLIC ORDER (1961) at 232-41; MCNAIR & WATTS, THE LEGAL EFFECTS OF WAR (4th ed. 1966) at 16, 18; O’CONNELL, THE INFLUENCE OF LAW ON SEA POWER (1979) at 83; 1 OPPENHEIM, *supra* n. 47, sec. 127; SCHACHTER, *supra* n. 49, at 150-52; SIMMA, *supra* n. 54, at 675-76; STONE, AGGRESSION AND WORLD ORDER (1958) at 44; Bunn, *International Law and the Use of Force in Peacetime: Do U.S. Ships Have to Take the First Hit?*, 39 Nav. War C. Rev. 69-70 (1986); Greenwood, *Remarks*, in Panel, *Neutrality, The Rights of Shipping and the Use of Force in the Persian Gulf War (Part I)*, 1988 Proc. Am. Soc’y Int’l L. 158, 159-61 (1990); Lagoni, *Remarks*, in *id.* 161, 162; Linnam, *Self-Defense, Necessity and U.N. Collective Security: United States and Other Views*, 1991 Duke J. Comp. & Int’l L. 57, 65-84, 122; Lowe, *supra* n. 67, at 127-30; McHugh, *Forcible Self-Help in International Law*, 25 Nav. War C. Rev. 61 (No. 2, 1972); Reisman, *Criteria for the Use of Force in International Law*, 10 Yale J. Int’l L. 279 (1985); Turner, *State Sovereignty, International Law, and the Use of Force in Countering Low-Intensity Aggression in the Modern World*, in LEGAL AND MORAL CONSTRAINTS ON LOW-INTENSITY CONFLICT (Nav. War C. Int’l L. Stud., v. 67, Coll. et al. eds. 1995) at 43, 62-80; Waldock, *The Regulation of the Use of Force by Individual States in International Law*, 81 R.C.A.D.I. 451, 496-99 (1952). Lowe, *supra* n. 67 at 128, notes that the *Nicaragua Case*, *supra* n. 60, at 93, specifically excluded considering anticipatory self-defense, and that States will likely rely on it more in the future.

73. See *supra* nn. 31-33 and accompanying text.

74. E.g., Civil Liability Convention, *supra* n. 22, Art. 3(1), (exclusion of liability due to “act of war, hostilities, civil war, [or] insurrection”). The Convention has been modified by 1976 Protocol, *supra* n. 22, and would be further modified by 1984 Protocol, Art. 3, reprinted in 6 Benedict, *supra* n. 22, Doc. 6A, which extended coverage to parties’ declared EEZs, or to a 200-mile belt off coasts of States that have not declared one. The 1992 Protocol, *supra* n. 22, *id.*, Doc. 6B, modifies the Convention in ways irrelevant to this analysis. See generally 2 O’CONNELL, *supra* n. 19, at 1008-10. Convention on International Civil Aviation, Dec. 7, 1944, Art. 89, 61 Stat. 1180, 1205; 15 U.N.T.S. 295, 356, declares that it applies during war.

75. E.g., Convention for Prevention of Pollution of the Sea by Oil, May 12, 1954 [hereinafter 1954 Oil Pollution Convention], Art. 19, 12 U.S.T. 2989, 3004; 327 U.N.T.S. 3, 18; amendments, Apr. 11, 1962, 17 *id.* 1523; 600 U.N.T.S. 332, and Oct. 21, 1969, 28 *id.* 1205, do not affect this Article; Treaty for Establishment of the European Economic Community, Mar. 15, 1957, Arts. 223-26, 1973 Gr. Brit. T.S. No. 1 - Part II (Cmd. 5179-II), 298 U.N.T.S. 3, 88-89.

76. North American Free Trade Agreement, Dec. 8-17, 1992, Art. 2204, T.I.A.S. No. —, reprinted in 32 I.L.M. 289, 605, 702 (1993) [hereinafter NAFTA]. NAFTA has many environmental protection provisions. NAFTA, *supra*, Arts. 104, 709-24, 901-15, 1101, 1114, 2005, 2014-15, 2101, analyzed in MAGRAW, NAFTA & THE ENVIRONMENT: SUBSTANCE AND PROCESS (1995) ch. 1; Baker, *After the NAFTA*, 27 Int’l Law. 765, 769 (1993); Garvey, *Trade Law and Quality of Life — Dispute Resolution Under the NAFTA Side Accords on Labor and the Environment*, 89 A.J.I.L. 439 (1995); Ludwiszewski, “Green” Language in the NAFTA; Reconciling Free Trade and Environmental Protection, 27 Int’l Law. 691 (1993); Stewart, *The NAFTA: Trade, Competition, Environmental Protection*, *id.* 751 (1993). NAFTA includes a specific national security exception, stating *inter alia* that nothing in it shall be construed to prevent a party from taking actions

it considers necessary to protect its "essential security interests," taken during war or other emergency in international relations, or to prevent a party from acting pursuant to its obligations under the U.N. Charter for maintaining international peace and security. NAFTA, *supra*, Arts. 2102(1)(b)-2102(c). A potentially hemispheric agreement, NAFTA is subject to the General Agreement on Tariffs and Trade, Oct. 30, 1947, 61(5,6) Stat., 55-61 U.N.T.S. [hereinafter GATT]; TIF, *supra* n. 32, at 355-58, lists GATT amendments. NAFTA, *supra*, Art.103(1). GATT, *supra*, Art. 21, 61(5), is similar to NAFTA, *supra*, Art. 2102.

77. *E.g.*, Kuwait Regional Convention and Protocol, *supra* n. 53; Red Sea Convention and Protocol, *supra* n. 54.

78. See *supra* n. 31 and accompanying text.

79. Cf. I.C.J. Statute, Arts. 38, 59; Restatement (Third), *supra* n. 30, secs. 102-03; see also *supra* nn. 49, 58-61 and accompanying text.

80. Vienna Convention, *supra* n. 43, Art. 61; see also ELIAS, *supra* n. 63, at 128-30; Restatement (Third), *supra* n. 30, § 336, cmt. c & r.n. 3; SINCLAIR, *supra* n. 43, at 190-92; International Law Commission, Report on the Work of its Eighteenth Session, *Report of the Commission to the General Assembly*, U.N. Doc. A/6309/Rev. 1 [hereinafter I.L.C. Report], reprinted in 2(1974) Y.B. Int'l L. Comm'n 171, 255-56 (noting relative rarity of the practice). MCNAIR, *THE LAW OF TREATIES* (2d ed. 1961) at 685 does not recognize a separate doctrine, but some of his hypothetical examples are impossibility situations.

81. Vienna Convention, *supra* n. 43, Art. 62, said declaratory of customary law by Fisheries Jurisdiction (U.K. v. Ice.), 1973 I.C.J. 3, 18; see also I.L.C. Report, *supra* n. 80, at 257-58; Restatement (Third), *supra* n. 30, sec. 336 & r.n. 1; SINCLAIR, *supra* n. 43, at 20, 192-96; Sharp, *supra* n. 2, at 24-25. For criticism of the Convention approach, substituting a new term — fundamental change of circumstances — for the traditional *rebus sic stantibus* phrase in revising the rules, see DAVID, *THE STRATEGY OF TREATY TERMINATION* (1975) ch. 1; Lissitzyn, *Treaties and Changed Circumstances*, 61 A.J.I.L. 895 (1967). ELIAS, *supra* n. 63, at 119-28, says the traditional view of *rebus sic stantibus* is no longer admissible today. For further analysis of pre-Convention practice, see Bederman, *The 1871 Declaration. Rebus Sic Stantibus and a Primitivist View of the Law of Nations*, 81 A.J.I.L. 1 (1988); Haraszti, *Treaties and the Fundamental Change of Circumstances*, 146 R.C.A.D.I. 1 (1975). U.S. practice has recognized the principle in what today would be considered a maritime environmental context. See Lissitzyn, *supra*, at 908-11.

82. Vienna Convention, *supra* n. 43, takes no position on the impact of armed conflict on treaties. Attempts to insert a Convention provision were defeated. Kearney & Dalton, *The Treaty on Treaties*, 64 A.J.I.L. 495, 557 (1970). Other sources must be examined for applicable law in such situations. Briggs, *Unilateral Denunciation*, *supra* n. 67, at 51. Restatement (Third), *supra* n. 30, sec. 336 cmt. e & r.n. 4, says war may be a basis for a fundamental change of circumstances claim. Others have considered war as a separate ground. See, e.g., Institut de Droit International, *The Effects of Armed Conflicts on Treaties*, Aug. 28, 1985, 61(2) *Annuaire* 278 (1986); Institut de Droit International, *Regulations Regarding the Effect of War on Treaties*, 1912, 7 A.J.I.L. 153 (1913); *Clark v. Allen*, 331 U.S. 503 (1947); *Karnuth v. United States*, 279 U.S. 231 (1929); *Techt v. Hughes*, 128 N.E. 185, 191 (N.Y.), cert. denied, 254 U.S. 643 (1920); 2 OPPENHEIM, *INTERNATIONAL LAW* sec. 99(4)-(5) (Lauterpacht, ed., 7th ed. 1952); Davis, *The Effects of War Upon International Conventions and Private Contracts*, 1927 Proc. Am. Soc'y Int'l L. 124-29; Fitzmaurice, *The Judicial Clauses of the Peace Treaties*, 73 R.C.A.D.I. 255, 307-17 (1948); Harvard Draft Convention on the Law of Treaties, Art. 35(b), 29 A.J.I.L. Supp. 657, 664-65 (1935); Hurst, *The Effect of War on Treaties*, 2 Brit. Y.B. Int'l L. 37 (1921); Lenoir, *The Effect of War on Bilateral Treaties, with Special Reference to Reciprocal Inheritance Treaty Provisions*, 34 Geo. L.J. 129 (1946); Sharp, *supra* n. 2, at 23-24.

83. Institut de Droit International, *supra* n. 82, Arts. 3-4, 61(2) *Annuaire* at 280; *id.*, *Regulations Regarding the Effect of War on Treaties*, Art. 5, 7 A.J.I.L. 154; 5 HACKWORTH, *DIGEST* (1943) sec. 513, at 383-84; 2 OPPENHEIM, *supra* n. 82, sec. 99(2), 99(5); Fitzmaurice, *Judicial Clauses*, *supra* n. 82, at 312; Harvard Draft Convention, *supra* n. 82, Art. 35(a), 29 A.J.I.L. Supp. at 664; Hurst, *supra* n. 82, at 42.

84. U.N. Charter, Art. 2(2); Vienna Convention, *supra* n. 43, Art. 26; BROWNIE, *supra* n. 30, at 616; I.L.C. Report, *supra* note 80, at 211; Kelsen, *PURE THEORY OF LAW* (Knight trans. 1967) at 216; MCNAIR, *supra* n. 80, at 493-505; Restatement (Third), *supra* n. 30, sec. 321; Friedmann, *The Uses of "General Principles" in the Development of International Law*, 57 A.J.I.L. 279, 286-87 (1963); Harvard Draft Convention, *supra* n. 82, Art. 20, 29 *id.*, Supp. at 661; Hassan, *Good Faith in Treaty Formation*, 21 Va. J. Int'l L. 443, 480-81 (1981); *Nicaragua Case*, *supra* n. 63, 1986 I.C.J. at 135-42. ELIAS, *supra* n. 63, at 43-44, says that *pacta sunt servanda* cannot be a *jus cogens* principle, as Kelsen, *supra*, would argue, because it is subject to exceptions, e.g., fundamental change of circumstances.

85. Vienna Convention, *supra* n. 43, Art. 18; see also *supra* n. 43 and accompanying text.

86. See generally Symposium, *State Succession in the Former Soviet Union and in Eastern Europe*, 33 Va. J. Int'l L. 253 (1993); Walker, *Integration and Disintegration in Europe: Reordering the Treaty Map of the Continent*, 6 Transnat'l Law. 1 (1993).

87. For an example, see *supra* nn. 31 & 40 and accompanying text.

88. I.C.J. Statute, Arts. 38, 59; Restatement (Third), *supra* n. 30, secs. 102-03; see also *supra* nn. 49 & 60 and accompanying text.

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89. "In at least one respect [its terms] are more restrictive than customary international law, namely in the case of the territorial sea." 2 O'CONNELL, *supra* n. 19, at 994; Charney, *Marine Environment*, *supra* n. 47, at 887.

90. S. Doc. 103-39, *supra* n. 40, reprinted in 6 U.S. Dep't St. Dispatch Supp. No. 1, at 19.

91. E.g., 1982 LOS Convention, *supra* n. 39, Arts. 1(1)(4)-1(1)(5), 21, 23, 39, 41, 43, 54, 56(1)(b)(iii), 60(3), 63, 66-67, 94(7), 116, 123(b), 145-47, 155(2), 162, 165.

92. *Id.*, Art. 192; compare Stockholm Declaration, *supra* n. 52, Principle 7; see also 4 NORDQUIST, *supra* n. 20, at 36-43. The U.S. Department of Defense and the Navy view Art. 236 of the Convention and Part XII "as a mandate to ensure responsibility for environmentally sound practices." Schachte, *The Value of the 1982 U.N. Convention on the Law of the Sea: Preserving Our Freedoms and Protecting the Environment*, 23 Ocean Devel. & Int'l L. 55, 61 (1992).

93. See generally 2 NORDQUIST, *supra* n. 51, para. 1.23, arguing for an evolving conceptual definition; 4 NORDQUIST, *supra* n. 20, para. 192.11(a); Tolbert, *Defining the Environment*, in ENVIRONMENTAL PROTECTION, *supra*, n. 2 at 259.

94. S. Doc. 103-29, *supra* n. 40, reprinted in 6 U.S. Dep't St. Dispatch Supp. No. 1, at 19.

95. 1982 LOS Convention, *supra* n. 39, Art. 1(1)(4); see also 2 NORDQUIST, *supra* n. 50, paras. 1.1-1.15, 1.22-1.24, 1.26-1.31; The LOS definition means that the environment is both human and nature centered. See Tolbert, *supra* n. 93, at 259.

96. 1982 LOS Convention, *supra* n. 39, Art. 193; compare Stockholm Declaration, *supra* n. 52, Principle 12, 11 *id.* at 1419; see also 4 NORDQUIST, *supra* n. 20, at 45-49. Vallarta, *Protection and Preservation of the Marine Environment and Marine Scientific Research at the Third United Nations Conference on the Law of the Sea*, in Symposium, *The Law of the Sea: Where Now*, 46 L. & Contemp. Probs. 146, 149 (1983) said the duty to preserve and protect the environment is a *jus cogens* norm.

97. "Significant" is not stated as part of the duty in this part of the Convention, but other Convention provisions, regional agreements, and commentators have added terms like "major," "serious," "significant" or "substantial." See, e.g., 1982 LOS Convention, *supra* n. 39, Arts. 94(7), 233; Kuwait Protocol, *supra* n. 53, Art. 1(2); Red Sea Protocol, *supra* n. 54, Art. 1(2); Restatement (Third), *supra* n. 30, secs. 601(1)(b)-601(3), 603(1)(a), 603(2); Low & Hodgkinson, *supra* n. 2, at 422-23. Such sources, when combined, can evidence custom. BROWNIE, *supra* n. 30, at 5.

98. 1982 LOS Convention, *supra* n. 39, Art. 194(1); see also Restatement (Third), *supra* n. 30, sec. 603(2). The "prevention" theme was partly derived from High Seas Convention, *supra* n. 31, Arts. 24-25, and limitation to "capabilities" from Stockholm Declaration, *supra* n. 52, Principle 7; 4 NORDQUIST, *supra* n. 20, paras. 194.1, 194.10(b). Diligent prevention and control are probably binding norms. Cf. BIRNIE & BOYLE, *supra* n. 28, at 95.

99. 1982 LOS Convention, *supra* n. 39, Art. 194(2); Restatement (Third), *supra* n. 30, §§ 601(1)(b), 601(2), 603(1)(a), 603(2).

100. 4 NORDQUIST, *supra* n. 20, para. 194.10(e).

101. Dumping is defined in 1982 LOS Convention, *supra* n. 39, Art. 1(1)(5); see also 2 NORDQUIST, *supra* n. 51, paras. 1.1-1.15, 1.24, 1.26-1.31.

102. 1982 LOS Convention, *supra* n. 39, Art. 194(3); compare Protocol of 1978 Relating to International Convention for Prevention of Pollution from Ships, 1973, Feb. 17, 1978, T.I.A.S. No. —, 1340 U.N.T.S. 61, incorporating by reference and amending Convention for Prevention of Pollution from Ships, Nov. 2, 1973, 1340 U.N.T.S. 184 [hereinafter collectively MARPOL 73/78], Art. 2(2), Annex II, 1340 U.N.T.S. at 184, 233, defining "harmful substance," not explained in the 1982 Convention. 4 NORDQUIST, *supra* n. 20, para. 194.10(j). Art. 194(3) is broader in sweep than MARPOL 73/78. The language in *id.*, Art. 2(2), defining pollution, is the same as 1982 LOS Convention, *supra*, Art. 1(1)(4). MARPOL 73/78 parties represent 92 percent of the Earth's merchant tonnage. BOWMAN & HARRIS, MULTILATERAL TREATIES (11th Cum. Supp. 1995) at 295. It is a fair assumption that its terms represent customary law; therefore, similar terms used in similar circumstances in the 1982 LOS Convention also restate custom. BROWNIE, *supra* n. 30, at 5. The injury must be significant, however. See *supra* n. 97 and accompanying text.

103. 1982 LOS Convention, *supra* n. 39, Art. 194(4). This restates a customary norm. 4 NORDQUIST, *supra* n. 20, para. 194.10(n); Restatement (Third), *supra* n. 30, sec. 601 & cmt. a, r.n.1, citing *inter alia* Draft Articles on State Responsibility, Art. 19(3)(d), Report of the International Law Commission, 2(2) Y.B. Int'l L. Comm'n 96, 31 U.N. G.A.O.R., Supp. No. 10, at 226 (1976).

104. 1982 LOS Convention, *supra* n. 39, Art. 194(5). Ice-covered areas, governed by *id.*, Art. 234, are an example of such sensitive environments. 4 NORDQUIST, *supra* n. 20, para. 194.10(o), noting that International Law Commission, Report on the Work of the 42d Session, ch. IV, para. 312, sec. C, item 2, Art. 22, Commentary, para. (2), 45 U.N. G.A.O.R., Supp. No. 10 (1990), reprinted in 2(2) Y.B. Int'l L. Comm'n 57 (1990) defines "ecosystem" as "an ecological unit . . . of living and non-living components that are interdependent and function as a community." 1982 LOS Convention, *supra*, does not define the term.

105. 1982 LOS Convention, *supra* n. 39, Art. 195; see also 4 NORDQUIST, *supra* n. 20, paras. 195.2, 195.6.

106. 1982 LOS Convention, *supra* n. 39, Art. 196.

107. 4 NORDQUIST, *supra* n. 20, paras. 196.1, 196.7(a).

108. 1982 LOS Convention, *supra* n. 39, Art. 197, partly based on Stockholm Declaration, *supra* n. 52, Recomm. 92, 11 *id.* at 1456-57, and Convention on Prevention of Marine Pollution by Dumping of Wastes and Other Matter,

Dec. 29, 1972, 26 U.S.T. 2403, 1046 U.N.T.S. 120 [hereinafter London Dumping Convention]. 4 NORDQUIST, *supra* n. 20, para. 197.3.

109. 1982 LOS Convention, *supra* n. 39, Arts. 200-01; *see also* 4 NORDQUIST, *supra* n. 20, paras. 200.1-200.6, 201.1-201.7; Restatement (Third), *supra* n. 30, sec. 603(2). Freedom of the high seas includes the right to conduct scientific research, subject to coastal State continental shelf rights. 1982 LOS Convention, *supra*, Art. 87(1). It is generally accepted as a customary right. 1 BROWN, *supra* n. 33, at 429.

110. 1982 LOS Convention, *supra* n. 39, Arts. 202-06, based in part on Stockholm Declaration, *supra* n. 52, Principles 16, 21, 11 *id.* at 1419-20; National Environmental Policy Act, 42 U.S.C. sec. 4332 (1994); 4 NORDQUIST, *supra* n. 20, paras. 201.1-202.6(b), 203.1-203.5(c), 204.1-204.8(d), 205.1-205.6(c), 206.1-206.6(c).

111. 1982 LOS Convention, *supra* n. 39, Art. 198. "IMO is as important in its particular fields of interest—maritime safety and protection of the marine environment—as is the UNEP at global level." BIRNIE & BOYLE, *supra* n. 28, at 53.

112. 4 NORDQUIST, *supra* n. 20, para. 198.1; *see also* Restatement (Third), *supra* n. 30, sec. 601, cmt. e & r.n.4, citing *inter alia* Memorandum of Intent Concerning Transboundary Air Pollution, Aug. 5, 1980, Can.-U.S., 32 U.S.T. 2521; 1274 U.N.T.S. 235.

113. This "to some extent anticipates" 1982 LOS Convention, *supra* n. 39, Art. 221. 4 NORDQUIST, *supra* n. 20, para. 198.1.

114. 1982 LOS Convention, *supra* n. 39, Art. 199; *see also* 4 NORDQUIST, *supra* n. 20, noting that High Seas Convention, *supra* n. 31, Art. 25(2), requires countries to cooperate with competent international organizations in measures to prevent radioactive materials contamination of the seas or airspace. The 1982 Convention, *supra*, covers a wider spectrum of required cooperation.

115. This "to some extent anticipates" 1982 LOS Convention, *supra* n. 39, Art. 221. 4 NORDQUIST, *supra* n. 23, para. 198.1.

116. 1982 LOS Convention, *supra* n. 39, Arts. 207(1)-207(2), 208(1)-208(3), 209(2), 211(2); *see also* 4 NORDQUIST, *supra* n. 20, paras. 207.7(a)-207.7(b), 208.10(a)-208.10(d), 209.10(a), 211.15(f); Restatement (Third), *supra* n. 30, sec. 603(1)(a). As *id.* r.n. 7 shows, the United States, like many nations, has marine pollution legislation which may require amendment to align it with Convention standards. Such laws, if enacted worldwide, can evidence customary norms. BROWNIE, *supra* n. 30, at 5.

117. 4 NORDQUIST, *supra* n. 20, para. 208.10(a).

118. 1982 LOS Convention, *supra* n. 39, Arts. 210(1)-210(3), 210(6); *see also* 4 NORDQUIST, *supra* n. 20, para. 210.11(b); Restatement (Third), *supra* n. 30, § 603. National laws, such as those in *id.*, r.n.7, can evidence custom. BROWNIE, *supra* n. 30, at 5.

119. 1982 LOS Convention, *supra* n. 39, Art. 210(5); *see also* 4 NORDQUIST, *supra* n. 20, paras. 210.11(c)-210.11(g), noting that London Dumping Convention, *supra* n. 108, Art. 4, requires prior approval.

120. 4 NORDQUIST, *supra* n. 20, para. 210.11(g) & n.14, citing *inter alia* International Law Commission, *Report on the Work of Its Thirty-First Session: Draft Articles on State Responsibility*, Art. 32, U.N. Doc. A/34/194 (1979), reprinted in 18 I.L.M. 1557, 1568, 1576 (1979), stating that these are not defenses if the offending country contributes to the occurrence of the situation of material responsibility. *See also* Commentary to Draft Articles on State Responsibility in International Law Commission, *Report on the Work of Its Thirty-First Session*, U.N. Doc. A/34/10 & Corr. 1 (1979), reprinted in 2(2) Y.B. Int'l L. Comm'n 122-36 (1979). The practical experience is that jettisoned fuel dissipates quickly in the atmosphere and does not present an emergency. 4 NORDQUIST, *supra*, para. 210.11(g) & n.14. Restatement (Third), *supra* n. 30, sec. 603, cmt. g & r.n.8 discuss aircraft noxious and noise emissions.

121. 1982 LOS Convention, *supra* n. 39, Arts. 18(2), 39(1)(c); *see also* Territorial Sea Convention, *supra* n. 31, Art. 14(3); COLOMBO, *supra* n. 20, § 181 (customary law); 2 O'CONNELL, *supra* n. 19, at 853-858 (same). As NWP 9A, *supra* n. 30, paras. 1.4.1, 2.3.1, 3.2, 3.2.2, 7.3.2, 7.3.7, demonstrate, this customary law of the sea norm follows different principles during armed conflict. *See also* Hague Convention (VI) Relating to Status of Enemy Merchant Ships at Outbreak of Hostilities, Oct. 18, 1907, Art. 2, 205 Consol. T.S. 305, 312 [hereinafter Hague VI]; Hague Convention (XIII) Concerning Rights & Duties of Neutral Powers in Naval War, Oct. 18, 1907, Art. 21, 36 Stat. 2415, 2431 [hereinafter Hague XIII]; Convention on Maritime Neutrality, Feb. 28, 1928, Art. 17, 47, *id.* 1989, 1993, 135 L.N.T.S. 187, 204; Nyon Arrangement, Sept. 14, 1937, Art. 5, 181 L.N.T.S. 135, 139; Stockholm Declaration Regarding Similar Rules of Neutrality, May 27, 1938, Arts. 4, 7, 188 *id.* 294, 299, 301, 305, 307, 311, 313, 319, 321, 325, 327; Oxford Manual, *supra* n. 30, Arts. 31, 34, 37, reprinted in LAW OF NAVAL WARFARE, *supra* n. 30, at 290, 292-93; San Remo Manual, *supra* n. 30, paras. 21 (Hague XIII rule); 136, Commentary 136.2 (Hague VI considered to be in disuse); Commentary 168.6 (Hague XIII rule); de Guttry, *Commentary*, in LAW OF NAVAL WARFARE, *supra* at 102, 109 (Hague VI of limited usefulness); Schindler, *Commentary*, in *id.*, *supra*, at 211, 221 (Hague XIII restates custom, with minor exceptions). This is yet another example of the "other rules" principle in operation. *See supra* nn. 64-88 and accompanying text.

122. 1982 LOS Convention, *supra* n. 39, Arts. 207(3) (land-based pollution), 207(4) (seabed activities subject to national jurisdiction); *see also* U.N. Charter, Art. 52.

123. 1982 LOS Convention, *supra* n. 39, Arts. 207(4), 208(5), 209(1), 210(4), 211(1), 212(3).

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124. *Id.*, Arts. 211(3)-211(4); *see also* Restatement (Third), *supra* n. 30, sec. 604(3). The Convention's negotiating history demonstrates that under it coastal States cannot require warships to give notice or get prior consent before entering the territorial sea on innocent passage. *See generally* ROACH & SMITH, *EXCESSIVE MARITIME CLAIMS* (Nav. War C. Int'l L. Stud., v. 66, 1994) at 154-60; 1 BROWN, *supra* n. 33, at 64-72. For principles governing innocent passage, which apply equally to merchantmen and warships, except that submarines must navigate on the surface and show their flag, *see generally* 1982 LOS Convention, *supra*, Arts. 17-26, 45, 52(2). The Ports and Waterways Safety Act, 33 U.S.C. secs. 1221-36 (1994), is a typical national statute regulating enforcement of safety and environmental measures in the territorial sea. A worldwide pattern of these kinds of laws can evidence customary standards. BROWNIE, *supra* n. 30, at 5.

125. These rules cannot apply to foreign ship design, construction, manning or equipment unless they effectuate generally accepted international rules or standards. 1982 LOS Convention, *supra* n. 39, Arts. 19(2)(h), 21; *see also* 2 NORDQUIST, *supra* n. 51, paras. 19.1-19.11, 21.1-21.12, noting some States' continued opposition to warships' right of innocent passage and linkage between 1982 LOS Convention, Arts. 21(1)(f), and 192, *supra*. The Art. 19(2) list is exclusive, although *id.*, Art. 19(2)(i), ("any other activity not having a direct bearing on practice") could be read expansively. *See* 2 NORDQUIST, *supra*, para. 19.11, citing Uniform Interpretation of Rules of International Law Governing Innocent Passage, Sept. 23, 1989, USSR-U.S., Art. 3, reprinted in 28 I.L.M. 1444, 1446 (1989) [hereinafter Uniform Interpretation], noting Russia has accepted this statement; NWP 9A, *supra* n. 30, para. 2.3.2.1. Aside from a special rule for fishing craft, Territorial Sea Convention, *supra* n. 31, Arts. 4-5, uses a general reasonableness rule to define innocent passage. *See also* Restatement (Third), *supra* n. 30, sec. 513 & cmts. a-e, h-i, & r.n.1-2, 6. For analysis of "other rules of international law" clauses, *see supra* nn. 64-88 and accompanying text.

126. These ships must carry special documentation too. 1982 LOS Convention, *supra* n. 39, Arts. 22(2), 23; *see also* 4 NORDQUIST, *supra* n. 20, paras. 22.1-22.9, 23.1-23.9, noting link with 1982 LOS Convention, *supra*, Arts. 24(1)(b), 25(3), 227; Restatement (Third), *supra* n. 30, sec. 513(2)(b) & cmt. d. Uniform Interpretation, *supra* n. 125, Arts. 5, 20, clarifies the Russian text of the 1982 LOS Convention, *supra*, Art. 22, saying that coastal States may designate sea lanes and traffic separation schemes "where necessary to protect the safety of navigation." 2 NORDQUIST, *supra* n. 51, para. 22.9.

127. 1982 LOS Convention, *supra* n. 39, Art. 24; *see also* 2 NORDQUIST, *supra* n. 51, paras. 24.1-24.8, noting parallel language ("form or fact") in 1982 LOS Convention, *supra* n. 39, Arts. 25(3), 42(2), 52(2), 227; Restatement (Third), *supra* n. 30, sec. 513(2) & cmt. c; Clingan, *Freedom of Navigation in a Post-UNCLOS III Environment*, in Symposium, *supra* n. 96 at 107, 111.

128. 1982 LOS Convention, *supra* n. 39, Art. 25; *see also* 2 NORDQUIST, *supra* n. 51, paras. 25.1-25.9, noting that Uniform Interpretation, *supra* n. 125, applies to Art. 25, taken directly from Territorial Sea Convention, *supra* n. 31, Arts. 16(1)-16(3); Restatement (Third), *supra* n. 30, sec. 513(2)(a) & cmt. c, which say there should be no discrimination among different countries' vessels during temporary suspension; it should apply to ships of all flags.

129. 2 NORDQUIST, *supra* n. 51, para. 25.1, citing Territorial Sea Convention, *supra* n. 31, Art. 16(3).

130. *See generally* 2 NORDQUIST, *supra* n. 51, paras. 25.1-25.9; Restatement (Third), *supra* n. 30, secs. 513, cmt. c; 601-04 state nothing to the contrary.

131. U.N. Charter, Art. 51; *see also supra* n. 72 and accompanying text.

132. 1982 LOS Convention, *supra* n. 39, Arts. 27-18; *see also* Restatement (Third), *supra* n. 30, secs. 457, r.n.7; 461, cmt. e; 513(2)(b) & cmt. c, e, h, & r.n. 2.

133. 1982 LOS Convention, *supra* n. 39, Art. 2(3); *see also* Territorial Sea Convention, *supra* n. 31, Art. 1(2); *supra* nn. 64-88 and accompanying text.

134. In the case of archipelagic sea lanes, passage is subject to the right of an archipelagic State, as defined in the Convention, to designate sea lanes and air routes through its archipelagic waters and adjacent territorial sea. 1982 LOS Convention, *supra* n. 39, Arts. 45-46, 52-53; *compare id.*, Art. 25(3). Head Harbor Passage through Canadian waters to Passamaquoddy Bay, off Maine, is an example of this kind of strait. ROACH & SMITH, *supra* n. 124, at 181; Alexander, *International Straits*, in *LAW OF NAVAL OPERATIONS*, *supra* n. 30, at 91, 99. Innocent passage rules also apply to straits between an island of a State and that State's mainland, if a route exists seaward of the island through the high seas or an EEZ that is of similar convenience with navigational and hydrographic characteristics. 1982 LOS Convention, *supra*, Art. 38(1). The Straits of Messina, off Italy, is an example. ROACH & SMITH, *supra* at 181; Alexander, *International Straits*, in *LAW OF NAVAL OPERATIONS*, *supra* n. 30, at 100-01. Few countries qualify as archipelagic States under the Convention. *See generally id.* at 131-32, citing 1982 LOS Convention, *supra*, Arts. 46-47, 49, 52-53; *see also* 2 NORDQUIST, *supra* n. 51, paras. 46.1-46.6(f), 47.147.9(m), 49.1-49.9(d), 52.1-52.7, 53.1-53.9(n). Similar construction should be given 1982 LOS Convention, *supra*, Art. 52(2), and its authority to temporarily suspend innocent passage through archipelagic waters. As for territorial sea innocent passage, which has broader application potential, *see also supra* n. 125-31 and accompanying text.

135. 1982 LOS Convention, *supra* n. 39, Art. 53; *see also* 2 NORDQUIST, *supra* n. 51, paras. 53.1-53.9(n); Restatement (Third), *supra* n. 30, sec. 513(4) & cmt. k, r.n.4.

136. 1982 LOS Convention, *supra* n. 39, Arts. 38(1), 45(1)(b), 52-54; *id.*, Art. 54 incorporates by reference *id.*, Arts. 39-40, 42, 44; *see also* 2 NORDQUIST, *supra* n. 51, paras. 54.1-54.7(b) and *supra* nn. 125-31 and accompanying text. Most commentators agree that Convention rules on nonsuspendable straits passage reflect custom. *See generally*, Clingan, *supra* n. 127, at 117; Harlow, *Comment*, in Symposium, *supra* n. 96, at 125, 128; Oxman, *Regime of Warships*, *supra* n. 67, at 851-61; Schachte, *International Straits and Navigational Freedoms*, 24 Ocean Devel. & Int'l L. 179, 181-84 (1993).

137. 1982 LOS Convention, *supra* n. 39, Art. 233, incorporating by reference *id.*, Arts. 42(1)(a)-(b), 236, would appear to apply, strictly speaking, to straits transit passage regimes because of references to Art. 42; the straits innocent passage regime, and provisions governing territorial sea innocent passage have no similar intervention provisions, although such might be inferred from coastal State authority to enact environmental laws that might include authority to intervene. Warships, naval auxiliaries, etc., have sovereign immunity as in the case of transit passage. *See generally id.*, Arts. 17-32, 45, 236; S. Doc. 103-39, reprinted in 6 U.S. Dep't St. Dispatch Supp. No. 1, at 11-15, 23, saying that by extension these principles apply to archipelagic sea lanes passage and straits passage. The U.S. Navy has taken the position that a straits passage regime also applies to approaches to straits. The Navy position that warships, operating in normal mode (*i.e.* submarines traversing these straits submerged), may employ formation steaming and conduct air operations as incidental to normal navigation practices, so long as there is no threat to the coastal State(s), is consistent with the transit passage regime. Alexander, *supra* n. 134 in LAW OF NAVAL OPERATIONS, *supra* n. 30, at 92; Clove, *Submarine Navigation in International Straits: A Legal Perspective*, 39 Nav. L. Rev. 103, 105 (1990); Schachte, *International Straits*, *supra* n. 136, at 184-86, but *see* Lowe, *Commander's Handbook*, *supra* n. 67, in LAW OF NAVAL OPERATIONS, *supra* on naval operations in transit straits. If this is accepted as practice, the environmental protection regime appurtenant to straits passage applies to this area too. The issue of straits passage for belligerents illustrates the interface of the LOS and the LOAC preserved by the "other rules" clauses of the law of the sea. *See generally* NWP 9A, *supra* n. 30, paras. 2.3.3-2.3.3.2, 2.5.1.1; San Remo Manual, *supra* n. 30, paras. 23-33; Mayama, *The Influence of the Straits Transit Regime on the Law of Neutrality at Sea*, 26 Ocean Devel. & Int'l L. 1 (1995); *supra* nn. 64-88 and accompanying text.

138. 1982 LOS Convention, *supra* n. 39, Art. 31; compare Territorial Sea Convention, *supra* n. 31, Art. 24, which *inter alia* provides for a 12-mile zone. The contiguous zone's outer limit means that States asserting a territorial sea less than the full extent provided by the 1982 Convention, 12 miles, or under customary law for States party to the 1958 Conventions, may declare a contiguous zone up to the limits permitted by whichever convention is in force for them. *See also* Restatement (Third), *supra* n. 30, sec. 511(b) & cmt. k.

139. *See generally* 2 NORDQUIST, *supra* n. 51, paras. 33.1-33.8(i).

140. 1982 LOS Convention, *supra* n. 39, Arts. 303(1)-303(2) provides:

1. States have the duty to protect objects of an archeological and historical nature found at sea and shall co-operate for this purpose.

2. . . . [T]o control traffic in such objects, the coastal State may, in applying Article 33, presume that their removal in the contiguous zone . . . without its approval would result in an infringement within its territory or territorial sea of the laws and regulations referred to in that article.

141. *See generally* 5 NORDQUIST, *supra* n. 47, paras. 303.1-303.10.

142. Art. 303 also does not affect identifiable owners' rights, salvage law or other admiralty rules, or cultural exchange laws and practices. 1982 LOS Convention, *supra* n. 39, Arts. 303(3)-303(4). Under traditional admiralty law, shipwrecks and objects found at sea are a finder's property, unless its national law or the law of the salvor provides otherwise. *See generally* Restatement (Third), *supra* n. 30, sec. 521, r.n.6; SCHOENBAUM, *supra* n. 22, ch. 14; S. Doc. 103-39, *supra* n. 40, 6 U.S. Dep't St. Dispatch, Supp. No. 1, at 51, citing U.S. legislation that may alter these rules. Title to warships or government aircraft is never lost until a flag State officially abandons or relinquishes it. If an aircraft or ship is captured, title vests then in the captor State. NWP 9A, *supra* n. 30, paras. 2.1.2.2-2.1.2.3, 8.2.1; *see also* Agreement Concerning Wreck of C.S.S. *Alabama*, Oct. 3, 1989, Fr.-U.S., T.I.A.S. No. 11687.

143. *See supra* nn. 64-88 and accompanying text.

144. 5 NORDQUIST, *supra* n. 47, para. 303.10.

145. 1982 LOS Convention, *supra* n. 39, Art. 149.

146. *Id.* *supra* n. 39, Arts. 55, 56(1)(a), 56(1)(b)(iii)-56(c), 57-58, defining the EEZ as extending outward 200 nautical miles from territorial sea baselines and providing that coastal States have "sovereign rights for . . . conserving and managing their natural resources, . . . living or non-living, of the waters subjacent to the sea-bed and of the sea-bed and its subsoil, and with regard to other activities for the economic exploitation and exploration of the zone, [e.g.] . . . production of energy from the water, currents and winds; [and] . . . jurisdiction as provided for in . . . this Convention [for] . . . protection and preservation of the marine environment; [and] other rights and duties provided for in this Convention." *See also id.*, Art. 60, giving the coastal State exclusive rights and jurisdiction over artificial islands and other EEZ installations. *Id.*, Arts. 61-72, expand upon standards for conservation and use of living resources, stocks occurring within two or more countries' EEZs, various kinds of sea life, and rights of landlocked and geographically disadvantaged States. *Id.*, Art. 73, declares standards for enforcing coastal State EEZ laws. *See also* 2 NORDQUIST, *supra* n. 20, paras. 55.1-55.11(d), 56.1-56.11(e), 57.1-57.8(b), 58.1-58.10(f), 60.1-60.15(m), 61.1-61.12(k),

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62.1-62.16(l), 63.1-63.12(f), 64.1-64.9(f), 65.1-65.16(i), 66.1-66.9(g), 67.1-67.8(e), 68.1-68.5(b), 69.1-69.17(h), 70.1-70.11(d), 71.1-71.9(c), 71.1-71.10(b), 73.1-73.10(h); S. Doc. 103-39, 6 U.S. Dep't St. Dispatch Supp. No. 1, at 25-27. As of 1992, 86 States had EEZs; 20 more claimed fishing zones. The EEZ "is now widely considered to be a part of general international law." 2 NORDQUIST, *supra*, para. V.33; Restatement (Third), *supra* n. 30, sec. 514, cmt. a. While *id.* sec. 514(1) generally follows Convention criteria as to EEZ sovereignty and jurisdiction, *Source Note* says "authority" is used instead of "jurisdiction" because of the Restatement's different characterization of jurisdiction in other contexts; 1982 LOS Convention, *supra*, Arts. 55, 58, specifically referring to *id.*, Arts. 87-115, which declare *inter alia* high seas freedoms of navigation which apply to the EEZ. States therefore cannot exclude warships on environmental grounds from their EEZ.

147. 1982 LOS Convention, *supra* n. 39, Art. 211(5). A special qualification to this general rule is *id.*, Art. 234, providing that coastal States may adopt and enforce nondiscriminatory laws for preventing, reducing and controlling pollution from ships in ice-covered areas to the limits of their EEZs where particularly severe climatic conditions and ice create obstructions or exceptional navigational hazards, "and pollution of the marine environment could cause major harm to or irreversible disturbance of the ecological balance." Such laws must have "due regard to navigation and the protection and preservation of the marine environment. . . ." Territorial, and hence territorial sea, claims are frozen as to Antarctica by the Antarctic Treaty, *supra* n. 68, Art. 4. For now, and unless there is a new Ice Age, Art. 234 only applies to Arctic Sea rim States, e.g., the United States. S. Doc. 102-39, 6 U.S. Dep't St. Dispatch Supp. No. 1, at 24, noting that key States concerned, i.e. Canada, the USSR and the United States, negotiated Art. 234 to provide the basis for implementing provisions for commercial and private vessels in the 1970 Canadian Arctic Waters Pollution Prevention Act consistent with Art. 234 and other relevant Convention provisions while protecting "fundamental U.S. security interests" in exercising navigational rights and freedoms throughout the Arctic. *See also* 2 O'CONNELL, *supra* n. 19, at 1022-25.

148. *See supra* nn. 96, 100, 119 and accompanying text for EEZ analysis. *See also* 1982 LOS Convention, *supra* n. 39, Arts. 76-78, 80, declaring that the shelf can extend outward the same distance, 200 nautical miles, as the EEZ, along the ocean bottom, or to the edge of the continental margin, whichever is greater, but not over 350 miles; 2 NORDQUIST, *supra* n. 51, paras. 76.1-76.18(m), 77.1-77.7(d), 78.1-78.8(d), 80.1-80.9, noting adaptation of Continental Shelf Convention, *supra* n. 31, Arts. 2-5; Restatement (Third), *supra* n. 30, sec. 515.

149. 1982 LOS Convention, *supra* n. 39, Arts. 55, 56(1)(b)(iii), 56(2), 58(3), 60(3), 60(7), 78-80, also employing a "must not infringe - unjustifiable interference" formula for shelf and high seas rights interfaces and a "reasonable exploration" - "may not impede" rule for interface of shelf and submarine cable and pipeline rights. *See also* 2 NORDQUIST, *supra* n. 51, paras. 56.11(e)-56.11(f), 58.10-58.10(f), 60.15(f), 60.15(j), 66.9(d), 78.8(c), 79.8(e), 80.9; Restatement (Third), *supra* n. 30, secs. 514, cmt. e; 515(2). "Due regard" or similar phrases also appear in other provisions of the 1982 LOS Convention, *supra*, Art. 87(2), (due regard for others' high seas rights and freedoms, and for Area activities), and in Continental Shelf Convention, *supra* n. 31, Arts. 4-5, ("reasonable measures . . . , may not impede"; no "unjustifiable interference with navigation, fishing," etc.); High Seas Convention, *supra* n. 31, Arts. 2, 26(2) ("reasonable regard" for others' high seas freedoms); Territorial Sea Convention, *supra* n. 31, Art. 19(4) (balancing navigation interests with right of arrest for crimes committed in the territorial sea).

150. 1982 LOS Convention, *supra* n. 39, Arts. 58(1)-58(2), 78, referring to *id.*, Arts. 86-115; *see also supra* nn. 64-88 and accompanying text for "other rules" analysis.

151. 4 NORDQUIST, *supra* n. 20, para. 211.15(b).

152. 1982 LOS Convention, *supra* n. 39, Arts. 213-14, 216, 222; *see also* 4 NORDQUIST, *supra* n. 20, paras. 213.1-213.7(f), 214.1-214.7(c), 216.1-216.7(d), 222.1-222.8.

153. Restatement (Third), *supra* n. 30, sec. 603; *see also supra* n. 97 and accompanying text.

154. 1982 LOS Convention, *supra* n. 39, Arts. 217-20, 223-24, 226-31, expanding on rules in the navigational articles, *id.*, Arts. 21(1)(f), 28(2), 56(1)(b)(iii), 56(3), 60(1), 80; *see also* 4 NORDQUIST, *supra* n. 20, paras. 217.1-217.8(j), 218.1-218(9)(h), 219.1-219.8(d), 220.1-220.11(n), 223.1-223.9(c), 224.1-224.7(e), 226.1-226.11(e), 227.1-227.7, 228.1-228.11(h), 229.1-229.5, 230.1-230.9(c), 231.1-231.9(c); Restatement (Third), *supra* n. 30, secs. 457, r.n.7; 461, cmt. e; 512.

155. 1982 LOS Convention, *supra* n. 39, Art. 225; *see also* 4 NORDQUIST, *supra* n. 20, paras. 225.1-225.9; Restatement (Third), *supra* n. 30, sec. 513, cmt. e.

156. 1982 LOS Convention, *supra* n. 39, Arts. 232, 235; *see also* 4 NORDQUIST, *supra* n. 20, paras. 232.1-232.6(c), 235.1-235.10(g); Restatement (Third), *supra* n. 30, sec. 604, r.n.3. Article 235 was derived from the Stockholm Declaration, *supra* n. 52, Principle 56; 4 NORDQUIST, *supra*, para. 235.1.

157. 1982 LOS Convention, *supra* n. 39, Art. 221; Charney, *supra* n. 47, at 892 n.79; *see also* 4 NORDQUIST, *supra* n. 20, paras. 221.1-221.9(h); Restatement (Third), *supra* n. 30, sec. 603, r.n. 3, noting similar provisions in 1969 Intervention Convention, *supra* n. 22, Art. 1, and 1973 Intervention Protocol, *supra* n. 22, to which numerous countries are party. TIF, *supra* n. 32, at 385; Declaration of Principles Governing the Seabed and the Ocean Floor, and the Subsoil Thereof, Beyond the Limits of National Jurisdiction, U.N.G.A. Res. 2749 (1970), para. 13(b), *reprinted in* 10 I.L.M. 220, 223 (1971).

158. Cf. BIRNIE & BOYLE, *supra* n. 28, at 286; BROWNIE, *supra* n. 30, at 5; Restatement (Third), *supra* n. 30, sec. 102(3), cmts. f, i, r.n.5.
159. See *supra* nn. 4-6 and accompanying text.
160. See *supra* nn. 64-88 and accompanying text.
161. See *supra* nn. 10-11, 13-16 and accompanying text.
162. Compare 1982 LOS Convention, *supra* n. 39, Art. 236, with *id.*, Arts. 42(5), 96, 110(1); see also High Seas Convention, *supra* n. 31, Arts. 8(1); 3 NORDQUIST, *supra* n. 67, paras. 95.1-96.6(c); 4 *id.*, *supra* n. 20, paras. 236.1-236.6(f). Warship and naval auxiliary immunity is an accepted rule of international law. 3 *id.*, para. 95.1; 4 *id.*, para. 236.1.
163. S. Doc. 103-39, *supra* n. 40, 6 U.S. Dep't St. Dispatch Supp. No. 1, at 24.
164. E.g., Convention on Protection of the Environment, Feb. 19, 1974, Arts. 1, 13, 1092 U.N.T.S. 280, 296, 298, among Denmark, Finland, Norway and Sweden.
165. Kuwait Regional Convention, *supra* n. 53, Art. 14; Red Sea Convention, *supra* n. 54, Art. 14.
166. See *supra* nn. 46-49 and accompanying text. Other regional treaties say they are subject to present and future LOS conventions, e.g., Convention for Protection of the Mediterranean Sea Against Pollution, Feb. 16, 1976, Art. 3(1), 1102 U.N.T.S. 27, 46, and its protocols.
167. See *supra* nn. 31, 40, 162 and accompanying text.
168. Compare 1982 LOS Convention, *supra* n. 39, Art. 94(4)(c), with High Seas Convention, *supra* n. 31, Art. 10.
169. Compare 1982 LOS Convention, *supra* n. 39, Art. 94(7), with High Seas Convention, *supra* n. 31, Art. 11(1); see also 3 NORDQUIST, *supra* n. 67, para. 94.8(k).
170. 1982 LOS Convention, *supra* n. 39, Arts. 122-23; 3 NORDQUIST, *supra* n. 67, at 344; see also *id.*, para. 123.12(e), listing *inter alia* Kuwait Regional Convention and Red Sea Regional Convention, *supra* nn. 53-54 as among regional coordination agreements for semi-enclosed areas.
171. Compare 1982 LOS Convention, *supra* n. 39, Art. 87(1), with High Seas Convention, *supra* n. 31, Art. 2; see also *supra* n. 67 and accompanying text.
172. 1982 LOS Convention, *supra* n. 39, Art. 240(d). Indeed, *id.*, Art. 87(1)(f), declares that the right to conduct scientific research is subject to rules in Parts VI and XIII of the Convention. Part VI declares rules for the continental shelf, and Part XIII states general principles for protecting marine environment. See *supra* nn. 9, 92-123, 148-50 and accompanying text. Subject to other Convention provisions, States conducting research must give other countries reasonable opportunity to obtain information necessary to prevent and control damage to the health and safety of persons and to the marine environment. 1982 LOS Convention, *supra*, Art. 242. A research installation or equipment is subject to the same rules prescribed for conducting research. *Id.*, Art. 258. See also 2 O'CONNELL, *supra* n. 19, ch.26. Vessels collecting scientific data are protected from capture under the law of naval warfare during armed conflict; if they are engaged in data collection for likely military application, they are not so protected. San Remo Manual, *supra* n. 30, paras. 47(f), 136(e).
173. Compare 1982 LOS Convention, *supra* n. 39, Arts. 87(1)(e), 116, with High Seas Convention, *supra* n. 31, Art. 2; Restatement (Third), *supra* n. 30, sec. 521(2)(c).
174. S. Doc. 103-39, *supra* n. 40, 6 U.S. Dep't St. Dispatch, Supp. No. 1, at 27.
175. 1982 LOS Convention, *supra* n. 39, Art. 116, incorporating *id.*, Arts. 63(2), 64-67, 118-20; compare Fishery Convention, *supra* n. 31, Arts. 1-8, 13; see also Restatement (Third), *supra* n. 30, sec. 521, cmt. e; S. Doc. 103-39, *supra* n. 40, 6 U.S. Dep't St. Dispatch, Supp. No. 1, at 27-28, listing treaties regulating or prohibiting high seas fishing. 1982 LOS Convention, *supra*, Arts. 56, 61-73, regulate EEZ fishing. See also 3 NORDQUIST *supra* n. 67, paras. 116.1-116.9(g); Charney, *supra* n. 47, at 896-901.
176. 1982 LOS Convention, *supra* n. 39, Art. 87; compare High Seas Convention, *supra* n. 31, Art. 2, declaring that a State exercising a high seas freedom through its vessels or aircraft must have "reasonable regard" for others' concurrent exercises of those freedoms.
177. With regard to fishing, this statement is only true with respect to the high seas where no littoral State interests, e.g. those in an EEZ, apply. In the latter case, high seas freedoms of navigation and overflight and other non-resource activities are preserved by the 1982 LOS Convention, *supra* n. 39.
178. 1982 LOS Convention, *supra* n. 39, Art. 87(2).
179. *Id.*, Art. 1(1)(1); see 2 NORDQUIST, *supra* n. 51, paras. 1.1-1.19, 1.26-1.31; Restatement (Third), *supra* n. 30, sec. 523, cmt. b, declaring that *id.*, sec. 523(1)(a) recites a customary principle, that "[N]o State may claim or exercise sovereignty or sovereign or exclusive rights over any part of the sea-bed and subsoil beyond the limits of national jurisdiction, or over its mineral resources, and no State or person may appropriate any part of that area . . ." *Id.*, sec. 523(1)(b) recites the U.S. view of the law:
. . . unless prohibited by international agreement, a state may engage, or authorize any[one] to engage, in . . . exploration for and exploitation of that area, provided that such activities are conducted (i) without claiming or exercising sovereignty or sovereign or exclusive rights in any part of that area, and (ii) with reasonable regard for the right of other states or persons to engage in similar activities and to exercise the freedoms of the high seas; . . . minerals [so] extracted . . . become the property of the mining State or person.

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Id., cmt. b.

180. 1982 LOS Convention, *supra* n. 39, Arts. 136, 140(1). The “common heritage” concept began with the Antarctic Treaty, *supra* n. 68, and continued with conventions related to outer space. Restatement (Third), *supra* n. 30, sec. 523, cmt. b & r.n.2 adopted the then U.S. position that deep seabed mining was a high seas freedom, rejecting the “common heritage” view in the Convention. However, if the Convention is accepted generally, “without dissent by . . . important . . . States, the sea-bed mining regime . . . may become effective also as custom . . .” *Id.*, sec. 523, cmt. e.

181. 1982 LOS Convention, *supra* n. 39, Art. 135; *see also* Restatement (Third), *supra* n. 30, secs. 521, cmt. i; 523.

182. 1982 LOS Convention, *supra* n. 39, Art. 137(2). *Id.*, Arts. 156-91, are constitutive provisions for the Authority; they would be modified by the Boat Agreement, *supra* n. 40, to amend Part XI of the Convention. *See* S. Doc. 103-39, *supra* n. 40, 6 U.S. Dep’t St. Dispatch Supp. No. 1, at 34-43.

183. 1982 LOS Convention, *supra* n. 39, Arts. 145-46.

184. *Id.*, Art. 149; *see also supra* nn. 65-78 and accompanying text for the relationship between this provision and the contiguous zone and the “other rules of international law” clauses found elsewhere in the Convention.

185. *Compare* 1982 LOS Convention, *supra* n. 39, Arts. 147(1), 147(2)(b), 147(c), *with id.*, Arts. 60, 80; *see also* Restatement (Third), *supra* n. 30, sec. 523(1)(b)(ii) & cmt. d, stating a more solicitous view of high seas freedoms.

186. 1982 LOS Convention, *supra* n. 39, Art. 138, referring to *id.*, Arts. 133-91.

187. *Compare id.*, Art. 141, 21, *with id.*, Arts. 88, 240(a).

188. *See supra* nn. 64-88 and accompanying text.

189. MAHMOUDI, THE LAW OF DEEP SEA-BED MINING (1987) at 173-75.

190. The treaties disclaim any intention to affect parties’ rights or claims as to their maritime jurisdiction “established in conformity with international law.” Kuwait Regional Convention, *supra* n. 53, Arts. 2, 15; Red Sea Convention, *supra* n. 54, Arts. 2, 15. The protocols allow application to ports, harbors, estuaries, bays and lagoons if there is a “marine emergency,” and if the particular country so decides. “Marine emergency” is defined broadly. Kuwait Protocol, *supra* n. 53, Arts. 1(2), 4. Red Sea Protocol, *supra* n. 54, Arts. 1(2), 4. These treaties implement environmental policies of 1982 LOS Convention, *supra* n. 39, Arts. 122-23; *see also supra* n. 170 and accompanying text.

191. *Compare* Kuwait Regional Convention, *supra* n. 53, Art. 1(a), *with* Red Sea Convention, *supra* n. 54, Art. 1(2).

192. Kuwait Regional Convention, *supra* n. 53, Arts. 3(a), 4-7; Red Sea Convention, *supra* n. 54, Arts. 3(1), 4-8, which adds a pledge to prevent, abate and combat pollution “resulting from other human activities.”

193. *See generally* Kuwait Protocol, *supra* n. 53; Red Sea Protocol, *supra* n. 54.

194. *Compare* Kuwait Protocol, *supra* n. 53, Art. 1(2), *with* Red Sea Protocol, *supra* n. 54, Art. 1(2).

195. *See supra* nn. 157-59 and accompanying text.

196. The Marine Emergency Mutual Aid Centre, an administrative agency, also must be notified. Kuwait Protocol, *supra* n. 53, Arts. 3, 10; Red Sea Protocol, *supra* n. 54, Arts. 3, 7(2).

197. Kuwait Protocol, *supra* n. 53, Art. 1(4); Red Sea Protocol, *supra* n. 54, Art. 1(4).

198. *See supra* nn. 157-59 and accompanying text.

199. *See also supra* n. 72 and accompanying text.

200. *See supra* nn. 52-54 and accompanying text.

201. Neither Iran nor Iraq was party to the 1958 LOS Conventions, *supra* n. 31. The customary principle of “other rules of international law,” restated in these agreements and the 1982 LOS Convention, *supra* n. 39, did apply, however. *See supra* nn. 64-88 and accompanying text.

202. *See supra* nn. 80-83 and accompanying text.

203. *See supra* nn. 191-94 and accompanying text.

204. *See supra* n. 60 and accompanying text.

205. Okorodudu-Fubara, *supra* n. 2, at 197; *see also supra* nn. 58-61 and accompanying text.

206. *See supra* nn. 4-6 and accompanying text.

207. Kuwait Protocol, *supra* n. 53, art. 1(2).

208. *See supra* n. 4 and accompanying text.

209. *See supra* nn. 8-9, 18 and accompanying text.

210. The U.N. Security Council deplored attacks on merchant shipping. If these Resolutions had been obeyed, they would have resulted in no more attacks on these vessels and therefore no more pollution of the Gulf from this cause. These resolutions covered a specific point, *i.e.* freedom of navigation, and therefore should not be construed as applying special Charter law to the exclusion of conventional norms, to these situations. *See supra* n. 8 and accompanying text.

211. *See supra* nn. 80-83 and accompanying text.

212. *See supra* nn. 8, 46 and accompanying text.

213. *See supra* n. 62 and accompanying text.

214. *See supra* nn. 10-11, 13-16 and accompanying text; *see also* Okorodudu-Fubara, *supra* n. 2, at 196.

- 215. *See supra* n. 55 and accompanying text.
- 216. *See supra* n. 54 and accompanying text.
- 217. *See supra* nn. 103, 142, 149, 176, 185 and accompanying text.
- 218. *See supra* nn. 132, 137, 150, 162-167 and accompanying text.
- 219. *See supra* nn. 64-88, 121, 133, 142-43, 160, 186-89, 201 and accompanying text.
- 220. *See supra* nn. 68-72, 186-89 and accompanying text.
- 221. *See supra* nn. 157-59, 195-99 and accompanying text.
- 222. *See supra* nn. 4-6 and accompanying text.
- 223. *See supra* nn. 190-216 and accompanying text.
- 224. *See supra* n. 46 and accompanying text.
- 225. *See supra* nn. 190-216 and accompanying text.
- 226. *See supra* nn. 55, 215-16 and accompanying text.
- 227. *See supra* nn. 46-49 and accompanying text.
- 228. *Compare* LOS Convention, *supra* n. 39, Part II.c.1 *with* Part II.c.2.
- 229. *See supra* nn. 46-49 and accompanying text.
- 230. *See supra* nn. 60, 62-63, 131 and accompanying text.
- 231. *See supra* nn. 132, 137, 150, 162-67, 218 and accompanying text.
- 232. *See supra* nn. 64-88, 121, 133, 142-42, 160, 186-89, 201, 219-20 and accompanying text.
- 233. *See supra* nn. 103, 142, 149, 176-78, 185, 217, 228 and accompanying text.